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CUTTING THE BOOM AT ALGIERS

By LIEUTENANT H. G. GRIEVE, R.N.V.R.

IT was on the Anniversary of Trafalgar, 1942, that we started to prepare for our particular task in the great North African landing—to cut the boom and force the entrance into the harbour of Algiers. That day was spent in exercising three hundred American troops embarking in and disembarking from the two British destroyers. "Broke" and "Malcolm"; and in spite of the cold and wet weather their discipline was excellent. At the end of the exercises ten U.S. officers and fifteen other ranks remained with us in H.M.S. "Broke." They settled down remarkably well to life on board.

The two ships left harbour that night to rendezvous with a convoy. At first glance this looked like an ordinary Gibraltar convoy, but the sight of ships crowded with U.S. troops and the special ram which had been fitted to our bows were two indications that some unusual enterprise was in the making, while the fact that speed was kept down to five knots made it obvious that we were working to some special schedule.

The voyage was without incident, except for encountering very heavy northerly gales, until the "Broke" was sent ahead to oil at Gibraltar. Before entering harbour we were ordered to disguise our passengers. This was done with the aid of officers' civvies and fifteen boiler suits, but even so, the identity of the individual leaning on the guard rail chewing gum was obvious—he was still an American.

We rejoined the convoy on the night of 3rd November and returned with it to Gibraltar the following day. By now it was obvious that those who had backed Norway as our destination were losers and that Italy or Vichy North Africa were likely to have a visit. Everything that happens at Gibraltar, even if it cannot be seen from near-by Spain, is liable to leak over the border with the daily flow of workmen in and out of the fortress; but leave was given, and one Watch went off in quest of beer at the Universal or Trocadero; while the officers set out to see whether La Ina sherry was as good as ever—it was!

Having topped up with oil from the hulk "Dragon," 1 a.m. on the 6th November saw our two ships on escort duty again with the convoy. Even on such a dark night it was easily seen that this was no Malta convoy, and as dawn broke there was no mistaking the character of the ships with landing craft in place of lifeboats and with their decks lined with men in khaki. Moreover, during the forenoon the Captain disposed of any further mystery and we knew that it was to be our mission to break through the boom and land our three hundred U.S. troops at Algiers in order to prevent scuttling of French ships in harbour, or the sabotage of port installations. At 10 a.m. the "Broke" and "Malcolm" joined a force consisting of the "Argus," "Avenger," "Sheffield" and "Scylla."

The next day, as we made eastward, we fully expected to be attacked by aircraft; but the only incident was that an American Liberty ship was hit in the stern by a U boat's torpedo. In spite of her damage she reached Algiers two days later, and this was the only casualty before the initial assault took place.

Later that afternoon the two destroyers were laid alongside H.M.S. "Sheffield" and the somewhat hazardous task of embarking our American troops began. Brows were used and the men we had left behind a fortnight before came on board with their full kit and numerous suit cases. By the time they had embarked we looked like a couple of overcrowded pleasure steamers. That evening the ships in convoy split up to lie off their respective beaches until zero hour when the assault craft were to carry the troops ashore.

At midnight our passengers were all given a hot meal—no mean feat for a destroyer's galley, and then we went to action stations. The lights of Algiers could be seen twinkling below the high hills, and the lighthouses on Cape Cazine and Cape Matifou were burning at full brilliance: it seemed obvious that so far the element of surprise was still in our favour. At 1 a.m., on 8th November, the assault on the beaches began, and forty minutes later we received the signal "Proceed in execution of previous orders."

It was a dark, moonless night; clear sky, wind-force 3; there was a slight sea but no swell. As we neared the shore searchlights could be seen sweeping Algiers Bay, but with a smoke-screen blanketing them. This had been laid by the "Cowdray" and "Zetland." The heavy battery on Cape Cazine was firing, so it was evident that this point had not yet been taken by the assault troops. At 2.40 a.m. we altered course to make for Cape Matifou and increased to 20 knots. Perhaps it was just as well we did not know that the battery at Cape Matifou was still in Vichy hands as we steamed past. Luck had been with us up to now. We had not been spotted, although searchlights had often swept over the ship; they caused a most unpleasant feeling of nakedness and it seemed impossible that we had not been sighted, but the searchlights made no attempt to hold either ship.

At 3 a.m., with the "Malcolm" in station a mile astern, course was altered for the East side of Algiers Bay, and approaching the coast at a reduced speed of 15 knots, ten minutes later Cape Matifou was abeam. Within half an hour we were only 1,000 yards from land and the low-lying sand hills were visible. Excitement reached its height when the information came from the bridge that we had fifteen minutes to go before we reached the boom. Just then a very bright searchlight held the ship for longer than usual and it seemed certain we had been seen; but still nothing happened. But a moment later it was realised that we were out of position and course was altered to starboard. By this time it was impossible to see anything behind the glare of the searchlights, and the "Malcolm," who had also failed to locate the boom, followed us out. We were strongly tempted to fire on the searchlights which were causing us such embarrassment; but our orders were not to open fire unless the Vichy forces were hostile. So we retired, making as much smoke as the Chief Engineer could produce. A starshell was fired over the harbour entrance, but only houses and palm trees could be seen through the smoke, though someone said he spotted the Casino and marked it down as the first port of call.

It was not until just after 4 a.m. that we came round for a second run with the "Malcolm" 1,000 yards astern. Almost at once we were picked up by those blasted searchlights. At last the tension was broken and the shore batteries opened fire. High columns of water rose very close to us though the ship was not hit. The "Malcolm" was not so lucky, for she was hit in the boiler room, and mortar

ammunition stowed on the upper deck was set alight. She hauled off to the North, apparently blazing fiercely, and with shells falling round her. Meanwhile, we in the "Broke," having again failed to locate the boom, also hauled off to the North.

In spite of this set-back, still another attempt to complete the operation was made, and at 4.18 a.m. we made our third run in. The ship's guns and shore batteries opened fire almost simultaneously as we neared the harbour entrance, but fire was confined to the searchlights, which could not be extinguished. All the shells went whistling over the ship, the smoke still lying from the previous attempts obviously causing the Vichy gunners to miscalculate the range.

It was now decided that trying to find the boom under the prevailing conditions would only end one way as the advantages all lay with the batteries and searchlights. So once more we retired to the northward and waited until the first signs of daylight should appear in the sky and the outline of the Algerian coast be seen. Up to now the ship was undamaged.

At five o'clock the message came from the bridge "stand by for the final run in." Course was altered for the harbour entrance and the speed increased to 15 knots. At last we could see our objective, and at 5.20 a.m. full speed was rung down. The ship began to vibrate with the increased speed and she seemed to be as keen to get through that boom as we were. Nobody spoke in case Vichy gunners a mile away might hear us. Our troops were all crouching behind the protective splinter plating which had been fitted for the purpose.

We thought we were unseen, but before the boom was reached the batteries opened fire once again and shells whistled round the ship; but still no hits were obtained. As we neared the boom this fire ceased, but machine guns opened on us; bullets were flying over like swarms of angry bees and loud smacks could be heard as they hit the ship.

A sudden slight check in speed, and we were through the boom and in the harbour of Algiers—the first unit of the operation to reach the objective. As the boom consisted of lighters joined by cables eight feet apart, we had expected a crashing of metal and rending of wood when we struck it, but we hit it at exactly the right spot and only suffered damage to the paintwork! The ship was doing about 26 knots at the moment of impact.

Three tankers were moored stern on to the detached mole only 400 yards ahead, so full astern was rung down; the "Broke" came round, and was alongside the Quay de Falaise just as though she was being berthed at Gladstone Dock at Liverpool. In spite of the bullets which were spattering on the quay, the jumping party at once went ashore and secured the ship. Snipers and pill-boxes were very active and it was a few minutes before the U.S. troops were all safely ashore, but our Oerlikons were doing grand work in clearing the immediate vicinity of the ship.

In the meantime the motor boat—an ordinary 20-ft. destroyer boat—set off with the boarding parties to secure the ships lying in the harbour. A party was left in each ship for anti-scuttling purposes, and the motor boat returned to the "Broke" for orders, more Tommy gun ammunition, and a new "Walkie-Talkie," when it went off once more across the machine-gun swept harbour, returning with four prisoners from a pill-box on the detached mole. This boat had been borrowed from H.M.S. "Wrestler" at Gibraltar, and if she visits Algiers she may find it still tied up to the Quay de Fécamp.

Breakfast was at eight o'clock—a hard-boiled egg and an apple. Then three officers and seven or eight hands went ashore to fight a fire in a warehouse alongside the ship as the smoke from burning sacks of sugar was most inconvenient. Apart

from that there was little for the ship's company to do at this time, and small groups were always breaking out with Tommy guns in search of trouble, which was easily found.

A Vichy submarine escaped through the North entrance. Gunfire from the "Broke" made her dive, and one of our Swordfish aircraft dropped a load of bombs on her. The ship was by now swung with her bows pointing out of the harbour in case the need for a quick get-away arose, and at about 8.30 a.m. the first shells for over three hours landed. Seen from the shore it was very frightening. The first was short, the second went through the forepeak, exploding on the quay wall, and the third landed in the warehouse, making us take shelter. After that little interest was taken in spotting. This fire seemed to come from mobile guns which had been brought down to the opposite mole.

Going full astern the "Broke" carried away the wires and backed into the Quay de Dunkerque, putting some merchant ships between her and the gun positions. The Captain's voice could be heard from the Ardent hailer telling us to come to the new berth and secure the ship, so we set off round the Quay de Dakar, dodging from railway trucks to haystacks, haystacks to barrels, and across the open end of the dock to where the ship was lying. A very unpleasant journey, as snipers seemed to have all the corners covered.

The Vichy resistance was obviously strengthening and at 9.5 the mobile guns found a new pitch and started the old game again. The first hit was soon obtained and accurate fire commenced. The only course left open was to retire with what forces we could muster, so at 9.30 the general recall was sounded on the siren and hailer. Five minutes later the "Broke" slipped with 65 of the 300 troops on board. Owing to a damaged screw, we made a circuitous exit from the harbour under heavy gunfire, suffering many hits on the hull and superstructure. The after magazine was flooded, but X gun fired until all available cordite was used up.

The wardroom flat and Captain's cabin flat were flooded, the engine room was holed on the water line, and the torpedo men's mess-deck and the forward central store were also flooded.

When clear of the gunfire, H.M.S. "Zetland" laid a smoke screen for us and speed was reduced to 10 knots, owing to excessive vibration at higher speed. Course was then set for Gibraltar, with the "Zetland" standing by. Early in the afternoon we made preparations for towing should the need arise—a very wise precaution as later on the water in the engine room reached the forced lubrication pumps and the engines had to be stopped. The "Zetland" took us in tow, and we proceeded at five knots, increasing to seven.

During the night the wind increased and a nasty sea got up. Every endeavour was made to get a port list, as most of the damage was on the starboard side. The list grew every hour, and at 4 o'clock the iron deck was awash. The tow was slipped, "Zetland" was ordered to close, and an effort was made to transfer the wounded and U.S. troops by whaler and motor boat. This, however, proved a most hazardous job and after the first trip it was decided that the "Zetland" should come alongside, bow to bow. The troops lined up and a very orderly jumping match commenced, about 50 making the safety of the "Zetland's" well-padded fo'c'sle. The performance was repeated, by which time the "Broke" was awash on the port side to the torpedo tubes. Obviously the old ship had not long to go, and with great regret we had to abandon her.

Owing to the expert handling of the "Zetland," not one life out of nearly 300 was lost in this transfer.

The "Broke" sank at about seven o'clock having lived up to a great name.

R.A.F., MIDDLE EAST, 1939-1942

ITS DEVELOPMENT, INTERESTS AND RESPONSIBILITIES

By M.I.S.R.

WHEN war broke out in September, 1939, we, in the Middle East, had no enemy immediately to fight. Precautions, both of a political and military nature, had of course to be taken, but even in the Mediterranean there was no real war activity until Italy declared war in June, 1940. There was, however, plenty to do during the waiting period. Our few squadrons were built up in strength and reinforced from India and elsewhere, and preparations were made for Italy's entry into the War. The German menace did not affect us immediately. Initially the squadrons were located in Iraq, Palestine and Aden as well as in Egypt and the Sudan, but it was clear that when hostilities commenced we should become involved in major operations in two main theatres—the Mediterranean (including North Africa and Malta) and East Africa and the Red Sea. Our resources were limited and concentration, wise in principle, was forced upon us in practice, but we could not afford to ignore the possibility of some sideshows being staged for our benefit at the same time.

In Iraq it was thought advisable to leave one general purpose squadron. In Palestine there had been trouble enough in peace time and we could not be sure of permanent stability under war conditions. This meant the retention of air forces to ensure internal security of our base area and lines of communication to and through Iraq. Aden still had its own peculiar peace-time tribal problems calling for intermittent air action by a permanent air garrison; moreover, its strategic importance as a naval base would increase and, before war was officially declared, fighters had to be sent there to guard against surprise raids by Italian bombers from Eritrea—only 150 miles away. Some dispersion was therefore imperative even at that time and in "friendly" territories.

During this period the Commanders-in-Chief and Planning Staffs of the three Services were busily engaged in studying possible outside commitments. Discussions took place with the Turkish and French Staffs at Aleppo, Beirut and Haifa, on problems relating to aid to Turkey to implement the Tripartite Agreement. This entailed air assistance in given circumstances should Turkey be attacked by Germany and/or Italy. Russia, too, lay in the background, and at that time her policy was uncertain. Greece was a steadfast neutral; but it was evident that, should she be attacked by either Italy or Germany, or both, immediate help could only be given her from Middle East resources. Farther West, visits had been made to Tunisia, Algeria and Casablanca by the Staffs of the three Services to concert with the French forces Allied action in the Western Mediterranean area against a hostile Italy and possibly for the defence of Gibraltar.

The French and British had additional common interests in the security of West and Central Africa. The air reinforcement route by way of Takoradi was being developed and its importance to the Middle East was rapidly increasing. It could be threatened by the Italians from southern and eastern Libya or from Abyssinia. Inter-Allied conversations took place at Chad, and the respective spheres of activity in Western and Central Africa were decided.

Even in the early days of the War the operational field for the Middle East R.A.F. Command was territorially immense, and there was an imposing list of potentials to be prepared for. It was hoped that Italy would maintain her

neutrality, but when she kicked over the traces in June, 1940, our responsibilities were the control of R.A.F. units (and land forces where specified) operating in the Mediterranean, Egypt, Palestine and Trans-Jordan, Sudan, East Africa, Red Sea, Aden (air and land forces), Somaliland, Iraq (and adjacent territories), the Persian Gulf (air and land forces) and Cyprus. In some cases the local Air Officer Commanding had full administrative responsibility. The A.O.C.-in-C. was further responsible for any R.A.F. operations in Turkey, the Balkans (including Yugoslavia, Rumania, Bulgaria and Greece), North Africa and West Africa, co-operating, should occasion require, with the forces of the French, Turks and Greeks. These commitments entailed considerable political activity, and the British diplomatic authorities with whom touch had to be maintained extended even beyond some of the geographical boundaries mentioned. But our primary role was clear—the defence of Egypt and the Suez Canal, and the maintenance of communications in the Red Sea area.

THE COLLAPSE OF FRANCE

No sooner had Italy come in against us than the catastrophic collapse of France occurred. June, 1940, changed the Middle East situation. A complete new stocktaking was called for. Security was seriously threatened in several important areas and operational freedom critically restricted. With the exception of Saudi Arabia, whose friendly though neutral attitude was never in question, Axis prestige soared in the Middle East countries and particularly in Iraq, where anti-British sentiments became more and more outspoken. This precluded the transfer of the remaining squadron to Egypt, and the possibility of having to provide reinforcements of air and land forces (the latter from India) for Iraq had to be seriously considered.

Vichy Syria became a sharp thorn in our side. We were practically cut off by land from Turkey, except for a back-door entrance through northern Iraq. Plans which we had available for assisting Turkey if she was attacked had to be completely revised, and the practical difficulties without French assistance appeared well-nigh insuperable. Yet, despite this serious weakening of British military power, Turkey resisted German attempts to make her pro-Axis in sentiment and in fact.

In addition, the growing anti-British attitude of Vichy France made Syria a new and unexpected threat to our desert line of communication from the Persian Gulf and through Iraq. Axis activities in Syria and Iraq increased, and we had another potential war area on our hands which called for still more air and land forces East (instead of West) of the Canal, ready to deal with any swift hostile stroke or tribal unrest. True, we were now in a position to switch squadrons quickly from the Western Desert to Palestine and Trans-Jordan and, to a lesser extent, Iraq; but arrangements had to be made in those countries to receive and maintain them. The personnel, equipment and stores had to come from the Egyptian pool—we could not afford to wait for additional forces from the United Kingdom.

In the South, also, plans had to be modified. We had to fight Italy without the aid of the French air forces operating from French Somaliland, and the use of the valuable port of Djibuti and French aerodromes was denied to us. Instead we had now to guard against their use, if not actual occupation, by the enemy. This lack of French co-operation, and inability to counteract it in time, was undoubtedly one of the deciding factors in the operations which led to the loss of British Somaliland in August, 1940, and with it the port of Berbera and one or two most useful aerodromes.

In the Mediterranean theatre, the French had accumulated a large and efficient air force in North Africa and particularly in Tunisia. This was no longer available to deal with the Italian air force located in Sicily and Sardinia, who almost at will could attack Malta and our shipping passing through the Mediterranean to Malta and Egypt. Malta was largely isolated and extremely vulnerable—certainly to air attack. Had the Italians shown more enterprise in the air and on the sea they could have made Malta untenable. As it was, we were still able to run protected convoys through the Mediterranean, and our Navy hit the Italian Fleet some hard and successful knocks at this time.

The early plans made with the French provided for air and land action against the Italians in Tripolitania to draw off enemy forces from the Western Desert area. Apart from other advantages to the R.A.F. in the Middle East, this was virtually worth several operational squadrons. This containing force was no longer available; the Italians were free to concentrate air and land forces against us in the East and we were not strong enough at once to stage an advance single-handed. A delay of several months was imposed upon us before we were on the march into Cyrenaica.

It is true that all this time valuable air reinforcements were arriving, but our commitments were also fast increasing, and to provide a reasonable air force for the Western Desert quickly serious risks had to be accepted elsewhere. The study of subsequent events shows how critical was this loss of time. There might well have been a different story to tell if we had been able to smash the Italians in Cyrenaica in the Summer of 1940.

West Africa is a long way from Egypt, and when responsibility for air operations in that area was allotted to the Middle East Command the likelihood of trouble brewing there on a serious scale seemed remote—perhaps limited to an occasional bombardment of ports or of the assembly depot at Takoradi. The air reinforcement route in that part of Africa appeared reasonably secure for a long time to come. The fall of France, whilst not leading to an actual immediate threat in these parts, marked the beginning of a period of preparation of defence measures in the Gold Coast, Nigeria and Southern Sudan against possible Axis and French air, land and sea attacks.

The problem went even further than that. Now there was an unfriendly, and potentially hostile, Vichy French Equatorial Africa, still possessing some military power, contiguous to an allied Belgian Congo whose resources in minerals and raw materials were fast becoming vital to a continuance of the Empire's struggle for freedom. The eastern boundary of this territory adjoins the frontiers of Southern Sudan, Uganda, Tanganyika and Northern Rhodesia, and therefore the security of the Congo became a matter of grave concern to the Middle East and South Africa. The Belgians overhauled their defence arrangements. A nucleus air force was created from the excellent personnel available, and British missions were established in the country.

An inter-Service planning staff, on which both Headquarters R.A.F., Middle East, and General Headquarters, Middle East Forces, were represented, was set up in Northern Rhodesia in the autumn to study defence problems affecting Central Africa. Regular and frequent liaison visits by the staff of the Military Mission in Brazzaville were introduced to facilitate co-ordination of defence measures. Fortunately the general situation in Central Africa did not deteriorate for long, and the declaration, at the end of August, by the Governor of Chad that the Union of Chad had joined the Free French movement was welcome news. This was quickly

followed by a *coup d'état* in the southern provinces, and virtually the whole of French Equatorial Africa was owing allegiance to General de Gaulle by the beginning of September, 1940. Our vital air reinforcement route was again reasonably secure. We could not, however, leave the route undefended and, as an initial step in the organization, a flight of Free French aircraft was stationed at Fort Lamy; plans were also made to reinforce the French air garrison by British air units from West Africa or from Middle East.

In the actual war zones, June to December, 1940, was a period of preparation for the offensive in the Western Desert, with the R.A.F. hammering away with its small bomber force at dumps, aerodromes and ports. A small advance by the Italians as far as Sidi Barrani had been held, but in general the situation was relatively quiescent. On the other hand, air activity in the Abyssinian/Eritrean theatre had been on the increase. It was inevitable that, should Italy come in against us, the Indian Ocean and Red Sea route would become our main supply line to Egypt except for aircraft, a large proportion of which could be flown from England *via* the Mediterranean and West and Central Africa. From June, 1940, onwards, therefore, the R.A.F. in the Middle East had the all-important task of protecting Allied shipping passing through Aden and the Red Sea. This entailed close air escort of actual shipping, including H.M. ships; continuous air warfare (in its fullest sense) to prevent the Italian air forces operating effectively against it; co-operation with naval forces; support of our own land forces working from the Sudan and Kenya and Somaliland to capture the country; and air defence of the principal bases.

The loss of French assistance at the southern approaches to the Red Sea was a considerable handicap. At the outset, we were greatly outnumbered in the air, and a considerable strengthening of the air forces in Aden, Sudan and Kenya became imperative in the Autumn of 1940. One or two squadrons were moved down from Egypt; India and Rhodesia lent a hand, and South Africa sent most valuable assistance. The S.A.A.F. units operated mainly from Kenya and Somaliland in direct support of the Imperial land forces, and it must be remembered that (apart from such equipment, stores and personnel as could be flown from Libya) the Italian forces in the South were cut off from main sources of war supplies. This soon began to tell in our favour.

It was an uphill struggle, but by the end of 1940 we had gained a considerable measure of air superiority, and shipping was passing almost daily through the Red Sea with but little molestation from air attack. We were also effectively co-operating with our naval units in reducing the submarine menace in this area.

In December two squadrons were withdrawn from Aden to re-equip as reinforcements for the coming struggle in the Western Desert. But in this month also the major land offensive operations commenced from the Sudan and Kenya to capture Eritrea and Ethiopia. These called for increasing air support, and a further reduction in our air strength in those theatres was, for some little time, inadvisable despite the pressing claims of the Western Desert.

Before looking elsewhere there is one aspect of Command which is worth noting here. At the outbreak of the War the land and air forces at Aden were commanded by the local Air Officer Commanding. It was soon apparent, however, that the military situation in the southern theatre necessitated a readjustment of the peace-time organization. So, by mutual agreement between the respective Commanders-in-Chief, the C-in-C. Middle East Forces assumed command on

24th June, 1940, of all land forces in Aden as well as in Somaliland. Responsibility for the actual defence (air and land) of Aden was left in the hands of the A.O.C. This arrangement stood until 1st April, 1942, when, the situation having been stabilized in this theatre, the command of all land and air forces at Aden reverted to peace-time procedure. A Combined Headquarters was then set up at Aden. The island of Socotra was thrown in, and so the R.A.F. Middle East Command began to expand into the Indian Ocean.

ITALIAN INVASION OF GREECE

In the Mediterranean area, up to October, 1940, Greece had figured on the list as a paper responsibility, but on the 28th of that month the Italians invaded the country, and in a few hours a R.A.F. squadron was on its way from Egypt to Greece to help the very gallant Greek air force. By the New Year four squadrons had moved over from the Western Desert and Egypt, and heavy bombers based on Egypt were using Greek aerodromes as advanced landing grounds to augment the striking force. The increasing air support for the Greek campaign was now having a crippling effect on the vital air and land operations in North Africa.

The British had launched the main attack against the Italians in the Western Desert at Sidi Barrani in the middle of December, 1940, and by the end of the year had captured Bardia. Tobruk fell in January, 1941, Benghazi early in February and Agheila a day or so later. We were knocking at the door of Tripolitania. But Germany had by now established very strong forces of all arms in Rumania and Bulgaria and came South into the Mediterranean arena to meet the new menace, threatened Greece and Yugoslavia, and finally attacked them in April. She entered into the lists of Cyrenaica at the end of March. Then the tide began to turn against us. The call was for more squadrons, land forces and equipment of all kinds for Greece. Our air resources were divided. We thinned out in North Africa and in the South, and became committed up to the hilt in the Balkans. Here in the end we were hopelessly outnumbered and operating in most unfavourable conditions, with, in some respects, inferior types of aircraft, and with a most precarious line of supply. The result was that we were overrun in Greece and subsequently lost Crete (R.A.F. losses in Crete amounted to over 40 per cent. of the total personnel), and were compelled to withdraw from Cyrenaica, except for Tobruk.

Perhaps our greatest operational handicap in this northern campaign was the paucity of aerodromes. In Greece we started almost from scratch and sites were feverishly prepared during the winter months. By the time the absolute minimum number were usable, in the Spring of 1941, the enemy had forced us back and were themselves able to use them. Much the same thing happened in Crete. Conflicting claims for limited constructional machinery and specialist personnel were received from Greece and Crete, and resources were very limited. Had the R.A.F. been able to continue using aerodromes in Cyrenaica, the story of Crete might well have been different, but even operating from the Western Desert the ranges were too great for our fighters and light bombers.

In the Western Desert we were East of the wire by May, 1941, almost back to where we had started from in the previous autumn. But henceforth we had to face a first-rate as well as a second-rate air power—Germany as well as Italy. The real air war for the R.A.F. in the Middle East and the struggle for air control of the Mediterranean began. The Axis air forces were able to strike in considerable force at any part of the Mediterranean, and to reach far into the Middle East countries

bordering upon it. They had won the battle for aerodromes, and the advantages this conferred upon them were enormous.

There now commenced a long period of reorganization, rebuilding and re-arming, primarily in Egypt and Malta, to meet the much more formidable air threat in the Mediterranean area. More aircraft, equipment and personnel were arriving steadily from home, but for some time this sufficed only to replace our serious losses and enable us to re-arm some of the squadrons with improved types. A number of squadrons, however, were soon to be released from the southern theatres, and were subsequently to provide most welcome reinforcements on the northern front. Their aircraft were, however, of obsolescent types—Wellesleys, Gladiators, Blenheim I's, etc.—and some considerable time elapsed before they were re-armed, trained and made ready for air warfare in the Mediterranean theatres, where latest types of German aircraft, different tactics and methods of employment were being encountered.

* Henceforth, too, there were to be other calls for equipment upon R.A.F. resources. After the collapse of France the Free French took up the fight with us, and Free French squadrons were formed in the Middle East (and Central Africa), but stores and equipment, including aircraft, had to be provided by the British from the outset. A certain amount of equipment recovered after the capture of Syria was in the main obsolescent, and rearming became an R.A.F. commitment. Similarly, with the help of British material, Greek and Yugoslav units were formed in Egypt from personnel who escaped after the Balkan campaign, and were gradually built up as and when resources permitted.

Polish air personnel were required in England, apart from a small proportion which has been doing most valuable work on the reinforcement route. One small unit also operated in the Western Desert for a brief period, using British aircraft. The Greek and Yugoslav squadrons fighting in the Mediterranean area, and the Free French squadrons in both the northern and the southern theatres, all under R.A.F. operational control, soon made a name for themselves in the Middle East Command. The Command was now assuming a truly Allied character.

CONQUEST OF ETHIOPIA

Fortunately, the campaign in the South no longer constituted a serious drain on our resources. Air and land operations from the North and South, aided by patriot forces working into the interior from the North-East, had gone well. Asmara fell on 1st April, British Somaliland was regained, and the Emperor of Abyssinia was reinstated at Addis Ababa on 6th April. The Italian port of Massawa was captured two days later. Further progress South and North resulted in the Italians requesting an armistice after the invading Imperial forces had joined hands and captured, on 16th May, the last but one of the Italian strongholds in Ethiopia.

A gradual thinning out of both R.A.F. and S.A.A.F. units had been possible from the early days of 1941, and with the port of Massawa and main enemy aerodromes in our hands we were able to reduce very considerably our air strength in this theatre. The Red Sea was again free for our shipping, and Aden no longer threatened by air attack. Still, the Italians held out in the interior until November, 1941, prolonging the struggle to the utmost in order to contain as many of our air and land forces as possible, and we were compelled to leave one or two R.A.F. and S.A.A.F. squadrons behind to support the land forces, by this time under control of the newly-formed (15th September, 1941) East African Command, in their final successful attack. The only part of this territory not in our hands was French

Somaliland. With the recapture of British Somaliland and Berbera, the value of Djibuti to the enemy and its threat to us diminished considerably. Nevertheless, the Vichy authorities there fully maintained an unfriendly, if not hostile, attitude, and precautions had to be taken to ensure that enemy submarines and long range aircraft did not make use of its operational facilities. In fact, a blockade, in which all three Services participated, had to be instituted. This was not in itself a heavy air commitment, although we could then ill afford to employ air forces on such unproductive and negative work; but it had to be done, with Aden and East Africa sharing the air work.

The Western Desert remained fairly quiet, particularly from the land point of view, until November, 1941, apart from the abortive attempt to relieve Tobruk, but we had trouble enough on hand in Iraq and Syria during the Summer. On 2nd May, 1941, the Iraqis, who had by now become openly hostile and had no doubt received promises of active air assistance from Germany if they would break with the British, unexpectedly overstepped the mark and attacked the R.A.F. station at Habbaniya. A few fighters and light and medium bombers from Egypt, and troops from Egypt and India, a proportion of whom were flown to Iraq, reinforced the existing British air and land garrison; by the end of the month the rebellion was crushed.

A notable feature of the air operations was the part played by the pupils and staff of the F.T.S. who manned training aircraft which had been converted by amazing improvisations into a combatant force of fighters and bombers. During the siege, lasting five days, they dropped 3,200 bombs of various types and fired over 100,000 rounds of ammunition. German and Italian aircraft did in fact participate in the hostilities, and there was ample evidence to prove that they had flown to Iraq via Syria, using aerodromes in that country for fuelling and technical maintenance with the connivance of the French. Such a flagrant breach of neutrality could not be allowed to pass without redress, and at all costs the Axis manoeuvres to turn Syria into a camp for active operations, primarily air of course, and intrigue in Middle East countries (including Cyprus), Persia and Turkey, had to be nipped in the bud. Experience of other dealings with Syria had proved that discussion with the Vichy Government in France would be profitless—a salutary lesson was essential.

OCCUPATION OF SYRIA

The price Vichy France paid for this indiscretion was the loss of Syria after five weeks' operations in June and July by Imperial forces of the three Services, assisted by Free French forces. On this occasion we were for once well placed from the air point of view. Units could be moved quickly across from Egypt to Palestine, if necessary, without difficulty, and yet could be switched back again to the Western Desert if the position there deteriorated. We had already made certain preparations against such an eventuality. There was no reason to withdraw squadrons from other Command areas.

Syria now came under Free French control in the general sense, but it formed an integral part of the Middle East Command for "military" purposes, and sea, land and air forces could be located in and operate from that country at the discretion of the respective Commanders-in-Chief. In certain eventualities full military control could be instituted without delay. The road to Turkey was again open and secure. Anglo-Turkish discussions had been continued intermittently throughout the year on high diplomatic and military levels, and we were now able

to push on with actual preparations to assist Turkey, should it become necessary, through Syria and northern Iraq.

Special anxieties about the security of Cyprus were also somewhat diminished, but there was still an air commitment in the form of static fighter defence and sea reconnaissance to be met. As the nearest enemy air and naval bases were only about 350 miles away, we could not afford to relax our vigilance against possible Axis attempts to capture the island in which enemy air forces would play a dominant role:

While the entire strategic position in the Middle East was immeasurably strengthened, there remained one weak spot to be cleared up. Iraq was secure; some air forces and strong land forces—principally from India—the full command of which had naturally passed from the Royal Air Force to the Army in June, 1941, had occupied the country. Persia, however, had succumbed to the blandishments and false promises of the Axis Powers. The security of our lines of communication through Iraq and the Persian Gulf to the Indian Ocean, and of the oil resources at the head of the Persian Gulf, could not be assured unless all Axis, and especially German, intrigue and unrest was eradicated from Persia. Furthermore, in June, 1941, Russia was in the War and a peaceful, if not a helpful Persia was also essential to the security of the Russian position and the oil organization in the Caucasus. A third cogent reason why Persia should be put into a more amenable frame of mind was that "Aid to Russia" had begun to mean more to Middle East than a mere slogan. A route through the Persian Gulf, Persia and the Caucasus was to be developed as an additional line of supply for reinforcements to Russia of aeroplanes, motor transport and other equipment provided by Britain and the United States. Assembly points, base depots, and other installations had to be established at the head of the Persian Gulf and inland in Iraq, and improvements made to, and staging posts provided along, the roads and railways in Persia itself. These new developments involved the employment of R.A.F. personnel and equipment, fighters and other air defence measures from the Middle East Command. A fourth consideration was that a stable Persia was vital to the defence of Baluchistan and North-Western India.

There was one satisfactory way of achieving our objects: subversive tendencies in Persia must be removed. A combined British and Russian ultimatum was given to the Persian Government and, immediate satisfaction being withheld, Allied land and air forces from the Caucasus and Iraq occupied specific positions in the country between the 25th and 28th August, 1941. There was a little fighting in the Basra and South Persian oil-field areas, in which R.A.F. fighters and bombers took part, but opposition was negligible. By August, 1941, then, the operational field of the R.A.F., Middle East, had been extended to include Persia. As India was closely interested in the security of Persia, some demarcation of responsibility between the Middle East and Indian Air and Naval Commands was necessary. In November, 1941, the eastern operational boundary for the Middle East was delineated as a general line formed by Longitude 60 deg. East, northwards to the Persian coast, then to Kerman and Meshed. Spheres of influence in Persia of both Russian and Imperial forces were similarly laid down, with common land between.

Some squadrons had again been taken away from the Western Desert for these operations, but they were soon back. We profited further from this additional test of the efficiency of our arrangements for moving strong air forces from one part of the vast Middle East Command to another. The R.A.F. in the Middle East was

fast beginning to realize what the word "mobility" really meant, particularly when modern types of aircraft were involved. Except for major stores depots and maintenance units and static air defences in certain prescribed areas, the organization, even for the Naval Co-operation Group, had now to be on a fully mobile basis throughout the length and breadth of the Command. Duplication of stores, equipment, and maintenance facilities in the various operational theatres, real and potential, was part of the price to be paid when taking out this insurance policy—costly, but it had already returned some tangible dividends and was unquestionably sound policy. The highest possible degree of mobility and speed of movement had to be attained, and without delay.

To refer once more to West and Central Africa. Our deteriorating relations with Vichy France and expansion of Axis influence southwards into French West African territory had naturally resulted in a strengthening of the defences of the Allied West African colonies. R.A.F. interests in particular had increased in this area, and a separate R.A.F. West African Command was inaugurated. The R.A.F. Middle East Command was relieved in October, 1941, of the responsibility for air operations West of the Nigeria-Chad frontier and for the close air defence of aerodromes on the air route through French Central Africa, but retained some responsibility (according to the nature of the operations) for the control of other Allied air activities from French Equatorial Africa.

RUSSIA'S ENTRY INTO THE WAR

It is difficult to tell what effect Russia's entry into the War in June, 1941, had upon the Mediterranean situation during the latter part of that year. It is reasonable to assume, however, that the fighting on the Russian front resulted in a proportion of the forces, and particularly the air forces, either in or destined for the southern theatre, being diverted to the eastern European front. That diversion came at a most opportune moment because it coincided with the end of the Greece and Crete campaigns, which left us especially weak in the air. Nevertheless, the Axis air forces, supported by naval forces, were most favourably placed for interfering with any attempts to pass shipping through the Mediterranean to and from Malta. The eastern basin was virtually surrounded by a ring of enemy aerodromes, with adequate strength and suitable types of aircraft—some of better performance than our own—to make air control effective. Any operational area could be quickly reinforced by air, and to a limited extent by land forces from Europe or from other parts of the Mediterranean theatre, and the mobility of the enemy air units was very greatly increased by the use of a considerable number of transport aircraft.

Malta was virtually isolated. It had much more than a prestige value: from the island, naval and air forces could interrupt enemy shipping passing to Tunisia, Greece, the Aegean Islands, Crete and North Africa. The retention of Malta had long become almost vital to our position in the Mediterranean. That meant, for the R.A.F., a flow of fighters, bombers and reconnaissance aircraft from home and from Middle East resources—not only aircraft but also personnel, supplies and equipment necessary to operate them. Reinforcement of aircraft by air from Egypt was possible for certain types only, as a direct result of not being able to use aerodromes in Cyrenaica.

The Royal Navy and the Merchant Service ran convoys to Malta from both East and West at great risk of loss of personnel and ships by air and sea attack. Again, we had to pay a very high price for our failure to hold Cyrenaica, for with the

relatively limited range of our aircraft at the time, and without the use of landing grounds in Western Cyrenaica, it was impracticable for the R.A.F. to provide adequate air protection for the ships throughout the whole passage from Egypt to Malta.

Nor was Malta the only fortress to be supplied by sea during the Summer and Autumn of 1941. Tobruk had been valiantly holding out, thanks very largely to the regular convoys being run by the Royal Navy. Shipping could be attacked by enemy air and surface forces the whole way from the Egyptian ports to Tobruk. There was the inevitable and constant cry for protection by short and long-range fighters, and for air-sea reconnaissance and air-striking forces to deal with enemy surface craft and submarines.

Some serious losses were incurred at sea, but with great bravery and fortitude convoys were run to Malta and Tobruk, and the major proportion of our air effort at this time was devoted to protecting them.

On land there was a lull. The Army was preparing for the next offensive in Cyrenaica, which was to take place at the end of the year. There could be no period of rest, however, for the R.A.F. in the Western Desert and Egypt. In the air we must always be fighting, in the widest sense of the word, to maintain an adequate degree of air superiority, under cover of which preparations on the ground and on the sea can be continued without serious interruption. This continuity of air operations, in varying degrees of intensity, has been demanded of, and successfully met by, the R.A.F. in the Middle East ever since the War started in that theatre. There has been no break in air operations in the Western Desert and there have been additional air wars to fight elsewhere at the same time.

Concurrently, therefore, with building up our air strength, training and reorganizing, the R.A.F. in the Middle East was occupied during the Summer and Autumn of 1941 in keeping down the enemy air effort in the Western Desert, attacking his lines of supply and dumps in Cyrenaica, protecting our shipping at sea and in port and attacking his, defending our main base areas in Egypt and Palestine and our communications through the Red Sea. And in all these air operations the R.A.F. enjoyed the assistance and co-operation of the Fleet Air Arm.

The offensive opened in the Western Desert on 18th November, 1941, with the R.A.F. greatly strengthened and receiving new types of American light bombers and fighters. Once again, despite our numerical inferiority and the advantage in performance held by certain types of the enemy's aircraft, virtual mastery in the air was held and maintained, and direct support for our Army was on the highest level so far achieved in the Middle East. The land operations, too, were successful at first. The siege of Tobruk was raised after seven months on 9th December, Benghazi captured on the 24th, and by the middle of January, 1942, the whole of Cyrenaica, including Agheila, was again in our hands. The enemy had been chased out of the country, but our forces were in consequence weary; transport was badly in need of repair, and we had outrun our supply services. A pause was therefore made for test and reorganization. Before we were ready to resume the advance, the enemy struck back in sufficient strength and speed to force a withdrawal, and in a fortnight or so, about 10th February, 1942, we were back in the Gazala-Tobruk area, having lost Benghazi, and were on the defensive.

Between February and May both sides prepared for further land offensives. Our air and land forces were reduced in strength by the calls for immediate reinforcements to the Far East. Nevertheless, the air war continued, and we more than held our own and slowly regained our air strength.

During this period the R.A.F. was able to cause some interference with the enemy's shipping bringing supplies to North Africa. Malta's contribution, R.A.F. and Fleet Air Arm, to these operations was so effective that a very determined effort to wipe out the garrison of the Island by continuous air attack both by day and night was made by the enemy between February and May. Peak figures were reached on 20th April, when the enemy air forces made 330 sorties by fighters and bombers. We were unable to keep pace with the heavy losses in the air and on the ground, and Malta was fast becoming untenable for air forces. Our fighters were outnumbered and in some respects outclassed by the Germans. When neutralization seemed almost achieved, the enemy relaxed their pressure for reasons best known to themselves, but which may have been connected with an enforced increase in their air activities in western Europe.

Although, by using aerodromes as far West as Tobruk, the R.A.F. was able to increase the range and strength of air protection to our shipping in the Mediterranean, and act as a deterrent to operations by the enemy's naval surface forces, it was still unable adequately to escort convoys through to Malta when they had passed westward of Tobruk. We suffered serious losses in ships from air and sea attack when convoys were run to the Island, but relatively only occasionally during the passage to and from Tobruk. Nowhere in the eastern area could any surface forces escape detection by enemy air reconnaissance or attack by his bombers. The enemy was always able to stage a concentrated air attack at a spot of his own choosing in much greater strength than the air escort that could be maintained by us over our ships. Moreover, vessels which succeeded in getting through to Malta, either from East or West, could be subjected to continuous and effective attack by Axis air forces operating from Sicily. The Central Basin was still dominated by the Axis air forces.

From May onwards we took full advantage of the respite at Malta to reorganize and build up the strength of the squadrons on the Island with reinforcements from home *via* the Western Mediterranean and from the Middle East. These included a few of the latest types of Spitfires. So began the rebirth of the R.A.F. in Malta.

The reinforcement of Malta by fighters from the West was a complicated business, calling for a high degree of navigational skill in the air and the closest co-operation between the naval and air forces. The Island was outside the range of Hurricanes and Spitfires, even when fitted with extra tanks, flying from Gibraltar. Aircraft were, therefore, brought through the Western Basin in aircraft carriers to a point just within their range from Malta, and then flown off. For the initial operations long-range bomber aircraft with navigational facilities flew from Gibraltar, found the carriers at dawn and led the fighters to Malta. Subsequently, the escorts themselves were carrier-borne. The carriers, with their heavy naval escorts, were within range of enemy shore-based aircraft for a considerable portion of the journey, and ran heavy risks of being sunk by air and submarine attack. The fighters themselves had to be protected in the air by short and long-range fighters from Malta during the approach to the Island since they had insufficient fuel for fighting en route, and some had had their armament removed in order to increase the petrol load.

These operations were successfully undertaken on several occasions, though not without losses. But the price paid was well worth it, and had the dangers not been faced there is little doubt that Malta's revival at this time would have been impossible—with serious repercussions.

Lest we get completely out of chronological step we must leave the Western Desert and look to the Indian Ocean and farther eastwards, where historic events

of the first magnitude were taking place which had a direct bearing on the activities of the R.A.F., Middle East.

With a lightning attack on Pearl Harbour on 7th December, 1941, the Japanese forced themselves into the War against the Empire and the U.S.A. This did not immediately affect the R.A.F. in the Middle East operationally, since activities were confined to the Pacific Ocean, but it was inevitable that the three Services would be required to send immediate reinforcements to the Far East.

History was repeating itself in a sense; the reduction in our air strength came once again at a time when the fight for Cyrenaica was in full swing and at a critical stage. In the Winter of 1940/41 it was the Greek campaign—now, a year later, it was the Far East. Reinforcements took the form of complete fighter, light bomber and reconnaissance squadrons, balloon units, various administrative and maintenance echelons, and controlling formations. Some went by sea, others by air; some went from the Western Desert, Palestine and Iraq, and others en route to the Middle East were diverted straight to India and the Far East. Anti-aircraft equipment, of great concern to the R.A.F., also went East with other important Army formations from similar locations. The extent of this loss to the Middle East cannot be given here or be assessed in mere figures of squadrons and aircraft, personnel and equipment. It made a great hole in our resources and came at a most inopportune time. Nevertheless, these sacrifices had to be made in order to safeguard Allied interests in the Far East. Our squadrons were the only ones immediately available. Time was vital, and there was no doubt that for the time being air force requirements for the Far East had precedence over our own. A year earlier, of course, it had been the other way round, and the air forces in India and Far East had been mulcted to strengthen Middle East.

Although this diminution in our actual strength and prospects might well have seriously affected the situation in the Western Desert, in the event it did not do so. Neither side was able to resume the offensive on land, and there were some months of stalemate on the ground in which to improve our air strength and rearm with new types of British and American aircraft. We still maintained the necessary degree of air superiority in that theatre. But it did affect somewhat our ability at that time to build up an air force organization from Palestine to Persia to meet a possible Axis push on Turkey and through the Caucasus.

With the fall of Singapore, Japanese naval and air activities spread to the Indian Ocean, and at once the R.A.F., Middle East, was affected operationally. We had now to be prepared to deal with submarine attacks and raids on shipping and on the principal ports and bases in Persian, Arabian and East African waters and in the Gulfs of Aden and Oman. Our paper plans for meeting such eventualities had to be put into effect. The affected areas were reinforced with fighters, reconnaissance aircraft (including flying boats) and bomber and torpedo-bomber striking forces. All this was in addition to providing the reinforcements for India and the Far East.

Then followed the combined operations to capture Diego Suarez and the northern part of Madagascar in order to prevent Axis and/or Japanese naval forces making use of the excellent naval base and aerodrome for refuelling and refitting purposes. S.A.A.F. units from the Union undertook the major portion of the air operations, but on the termination of hostilities on 1st July, 1942, the R.A.F. Middle East Command was made responsible for future air operations on this island. Other combined operations commenced on 11th September to take the whole island and were successfully concluded, the Imperial land-based air units co-operating under

the control of R.A.F., Middle East. The diminished threat offered by possible use of Djibuti and French Somaliland was removed completely by the Colony's rupture with Vichy on 28th December, 1942.

On 1st September, 1942, the operational areas allotted to this Command were further expanded to include Mauritius, Rodriguez and the Seychelles. The actual flying boundary naturally extends a degree or two East of these islands. Within this boundary the R.A.F., Middle East, are also responsible for all administration and maintenance of air forces.

During this period, too, it had been found expedient to adjust the operational boundaries on the East African mainland, and on 16th July, 1942, Northern Rhodesia and Nyasaland were entered on the books of Middle East for operations and for administration, though not for training and civil aviation development. This conformed to the southern boundary of the East African Military Command.

THE BATTLE FOR EGYPT

The "Battle for Egypt" opened with the Axis offensive on 26th May, 1942, against our positions in the Gazala-Tobruk-Hakim area. Air superiority was once more achieved from the outset, and the support given to the land forces was acknowledged to be most effective. Still, after very severe fighting, the land battle went against us. Tobruk fell on 20th June, and here it must be stated that once our land forces came East of the frontier, and we were in consequence unable to operate from landing grounds West of the wire, it was impracticable for the R.A.F. and S.A.A.F. to give fighter protection to our land forces in Tobruk. We fell back by stages through Mersa Matruh to the El Alamein line, where the position was stabilised early in July.

We were now really up against it for a time in North Africa and the Mediterranean. Apart from the Western Desert air operations themselves, which went on continuously irrespective of, yet always bearing a direct relation to, the land operations, our air defence commitments materially increased, not only in Egypt—the main Allied base area—and the Red Sea, but also in Palestine, the Levant and Cyprus. With the enemy holding aerodromes as far East as Daba, and also operating from Greece and Crete, these areas were well within effective range of the Axis air striking forces, and of enemy fighters West of a general line through Alexandria and Cairo, so that escorted raids on these latter districts were practicable. Further, the whole of the Eastern Mediterranean had come more and more effectively under the domination of the Axis air forces as our land forces withdrew eastwards. No naval surface craft or merchant ship could put to sea in the Eastern Mediterranean without serious risk of loss through air attack, and so air protection, even in the extreme eastern limits, became a heavy and daily commitment of the Allied air forces.

Another aspect was that all supplies, equipment and personnel for the Axis forces in the Western Desert had to come by sea (supplemented by air transport). This shipping had to be stopped at all costs if a further enemy advance into Egypt was to be frustrated. It has already been shown that the advent of German air forces in the Mediterranean and the acquisition by the Axis Powers of aerodromes farther and farther East inevitably meant that the power of our naval surface forces effectively to control sea communications (and that includes, of course, interfering with the enemy's shipping) had naturally progressively diminished. Correspondingly, the responsibilities of our air forces in this respect had still further increased, but, unfortunately, with the loss of the forward aerodromes, so had the operational

handicaps. The enemy now had a wide choice of routes and more ports of embarkation and disembarkation available to him. Day and night air reconnaissance was required to enable our air striking forces to attack enemy ships at sea and in harbour—in co-operation, of course, with naval forces whenever practicable. The ranges of our aircraft available for these purposes were more than ever inadequate when forced to operate from the Delta aerodromes, and for some time a proportion only of the Mediterranean could be covered. However, with the arrival in Middle East of an increasing number of long-range American types of bombers, which could also be used for reconnaissance, and our increasing ability, thanks to the improved fighter defence of the Island, to operate a wider range of types of aircraft from Malta, our air grip on enemy shipping in the Mediterranean gradually tightened. Sinkings by aircraft and submarines became more frequent, and the enemy's power to reinforce North Africa was progressively reduced. There is little doubt that the failure of the Axis forces to maintain their final thrust in September to break through the El Alamein position was primarily due to our successes against his shipping at this time.

There remained, however, the problem of affording air protection to our own shipping in the Mediterranean. In this respect, too, we were much more unfavourably placed than at the beginning of the year. Close escort by short range fighters was practicable only for the very early stages of the journey to Malta. Thereafter, and until nearing the Island, the enemy was still able to concentrate at will very strong air attacks on any ships attempting the passage. In spite of this, further convoys were run to Malta during the summer months, though, as is known, at some considerable loss to shipping. Until we were able to use aerodromes as far West as Benghazi and beyond, our air forces were precluded from giving a reasonable degree of air protection to our own shipping supplying Malta.

Such, then, was the air position in the Eastern Mediterranean theatre in October, 1942. The great offensive in the Western Desert began on 23rd October and resulted in the expulsion of all Axis forces from Cyrenaica and Tripoli.

NORTHERN FRONT

A brief reference to what can conveniently be called the Northern Front might usefully be made here to round off the picture. In these theatres—Syria, Iraq and Persia—we may still be called upon to go to the assistance of Turkey and/or Russia, and our preparations for the operation of air forces in strength in these areas have progressed satisfactorily and effectively during the current year. On the air operational side the chief commitment still is countering the enemy attacks on our shipping in the Persian Gulf and Gulf of Oman with reconnaissance and bomber aircraft.

On 12th January, 1942, the control of land forces in Iraq and Persia passed from India to the C.-in-C., Middle East Forces, which greatly facilitated the co-ordination of air and land operations in any or all of the Northern Front countries, since the respective Commanders-in-Chief, army and air, were located in the same place—Egypt. Operations on this front cannot be divorced from those in the Western Desert and Mediterranean theatres without some loss of effective effort; moreover, Middle East is still the main source of supply and centre of maintenance and repair facilities. However, at the end of August, 1942, the Commander-in-Chief, Middle East, was relieved of the command of land forces in Iraq and Persia and a separate Army Command embracing those two countries was instituted. The responsibility for air operations still rests, however, with the Air Officer Com-

manding-in-Chief, Middle East. Effective co-operation between the Services is assured in the new organization through the medium of A.O.C., Iraq, who actually operates the air forces in Iraq and Persia.

CONCLUSION

One historic landmark in the history of the air warfare in the Middle East which must be given prominence before finishing this review was the arrival in Egypt of the first American bomber force at the end of June, 1942. It heralded the beginning of a new era in strategic bombing. The first raid on the oil organization in Rumania provided the baptism of these long-distance heavy bombers, and their contribution to the Allied air effort in the Middle East rapidly increased as more units flew from America. A short time later complete American fighter and light bomber formations arrived. By October, 1942, the American air forces were fully established in strength in the Middle East, entering into every phase of air activity. They have their own system of control and administration and yet fit perfectly into the R.A.F. plan of operation and organization. They now form an integral and increasingly important part of the Allied air effort under the direction of the Air Officer Commanding-in-Chief, Middle East.

I have only attempted to present a very broad outline of the interests and responsibilities of the R.A.F. Middle East Command. Only with the aid of an atlas can one fully appreciate its size and scope in October, 1942. In very general terms its operational boundaries and spheres of influence are : in the North, Rumania, Turkey and the Caucasus ; in the East, Persia and the Persian Gulf ; thence South into the Indian Ocean along the 60 deg. East meridian ; in the South, Mauritius, Madagascar and the Zambesi River ; and in the West, the eastern provinces of the Belgian Congo, Chad and Tripolitania, and Malta.

The assistance of the Fleet Air Arm in the various fields of activity may not have been adequately recognized. In the air operations supporting the land forces in particular, it is true to say that their co-operation was something more than invaluable—it was indispensable to success.

The reader, himself, will be able to visualize the extent and complexity of the problems to be tackled each day by the Air Officer Commanding-in-Chief and the Staffs. He will appreciate also, that to keep this powerful force functioning and constantly ready to meet all possible emergencies in this vast Command, there must also be in the Middle East an enormous and complicated supply, maintenance and signals organization, flying and training schools to meet all forms of wastage in personnel, and kindred auxiliary services.

Finally, it will be manifest that but a few of these problems are purely Air Force in character, and that practically all operations are combined ones, calling for the closest inter-Service planning, organization, administration and direction. Continuous discussion between the respective Commanders-in-Chief and their Staffs has therefore been, and will continue to be, an essential pre-requisite to successful air operations. It will also not have escaped notice that, in the conduct of air operations in this war zone in particular, political considerations often play an important and deciding part.

The Combined Headquarters established in Cairo, and at subordinate formations, and the Minister of State's Office, provide the necessary machinery and guidance for all air operations in the Middle East Command. The Royal Air Force, Middle East, is a co-equal partner in a very large firm, having a very wide range of business.

THE CAMPAIGN IN BURMA, 1942: FIRST PHASE¹

By BRIGADIER J. G. SMYTH, V.C., M.C.

A CONSIDERABLE amount of light has been shed on the second phase of the operations in Burma in 1942, *i.e.*, from the fall of Rangoon until our forces were finally withdrawn into India, but not much has been published about the opening phase of the campaign. Yet this first phase held far more difficult problems for the Army Command than did the second. The small number of troops available had to be spread over vast distances with the object of holding landing grounds and keeping invading Japanese forces as far away as possible from Rangoon for as long as possible. With the same object—the protection of Rangoon—the troops in Lower Burma were tied to certain defensive lines until certain definite dates. This led to great difficulty in breaking contact when the time for withdrawal came. It also led to engagements at close quarters in country disadvantageous to us which could have been avoided had the vital factor of Rangoon not existed.

In the first phase our troops in Upper Burma and the Chinese did not come into the picture at all, and in this phase occurred the only two serious engagements and most of the casualties. Our lack of preparedness in Burma against possible attack by the Japanese has been acknowledged officially. It was simply due to the fact that we had not the resources to be strong everywhere.

In the Autumn of 1941 I was in command of a new Indian division in process of formation. In December, however, I was transferred to command the 17th Division, which was undergoing intensive training prior to despatch overseas. The 17th Division was fully mechanized. It had concentrated on its mechanized problems; its higher training was much in advance of its individual and platoon training; all its battalions were new units. Had it been foreseen that the division would be hurled straight into jungle fighting against highly-trained jungle fighters, it would have paid handsomely to have ignored the mechanized transport and devoted the whole of the last month's instruction to the training of individuals and junior leaders.

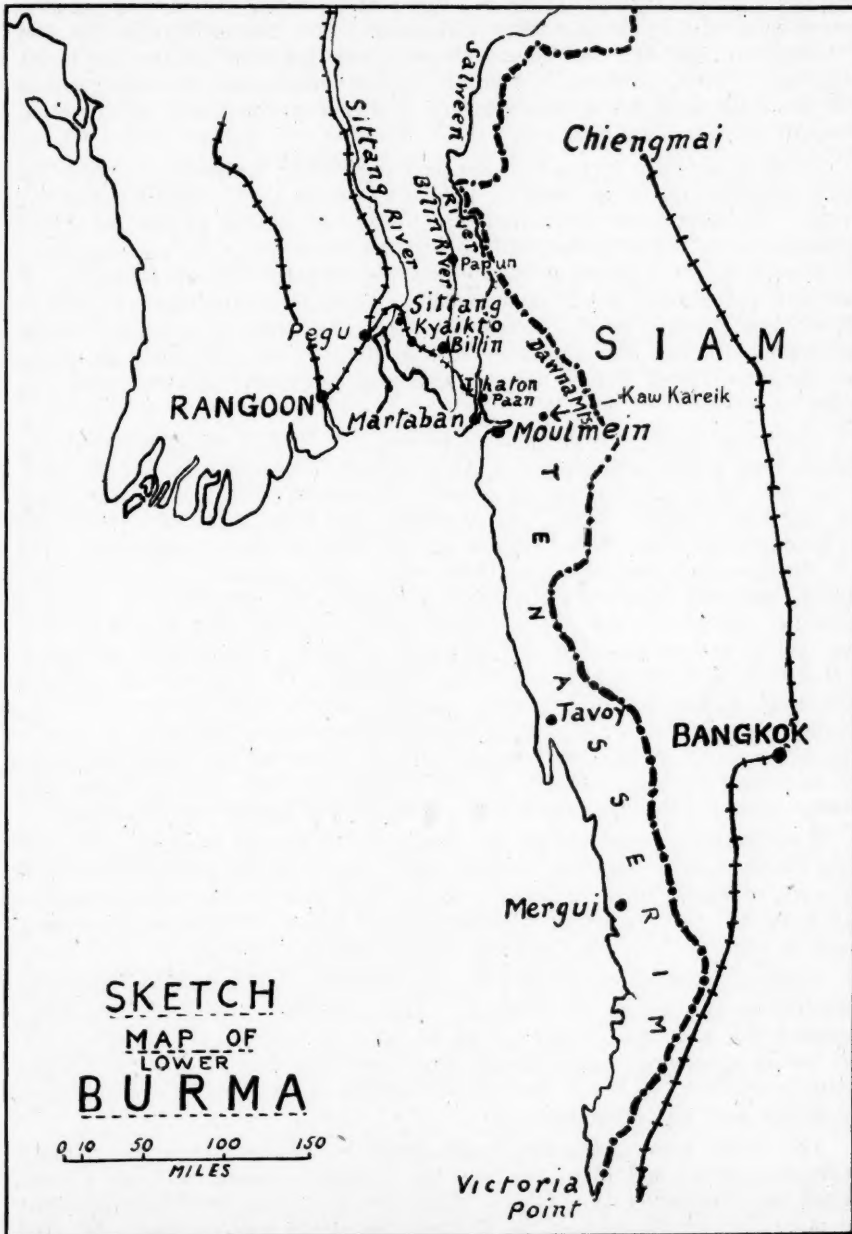
Within a few days of my assuming command of the 17th Division, the brigade that was due to leave first was sent off for despatch overseas. That was the last I saw of it. I only heard later that it had been sent to Malaya, where it went straight into action, lost its Brigadier killed and suffered very heavy casualties.

On Christmas Day, 1941, I was summoned to General Headquarters. There I was told that my Divisional headquarters and one infantry brigade were to proceed to Burma, while the remaining brigade was to go to Malaya. That brigade also I never saw again. General Hutton, who had been selected to command the troops in Burma, had already left G.H.Q. Stricken with a violent attack of influenza, I was held up a short time. Senior members of my staff were sent off by air ahead of me. However, I arrived in Rangoon on 9th January, 1942.

¹ This is a condensed version of an article published in the issue of the *Journal of the United Service Institution of India* for July, 1942, under the title: "The Start of the War in Burma." It is published here by courtesy of that journal.

Brigadier Smyth, who was commanding the 17th Division in Burma as an acting Major-General, retired from the Service last November. He had previously commanded a brigade at Dunkirk.

By that date the Japanese had invaded Burma and taken Victoria Point, our most southerly aerodrome. They had also carried out on Rangoon a somewhat severe air raid, from which the morale of the civil population never really recovered.



I found the Army Commander confronted with the fearsome problems of defending an enormous area with very few troops and of developing the air and ground defence of Rangoon—a dreadful bottleneck which needed a great deal of development before it could become suitable as a base port. For some reason it had hitherto been anticipated that the Japanese would invade Upper Burma from the direction of Chiangmai, and the 1st Burma Division was disposed well to the North accordingly. Now, however, it appeared almost certain that the enemy would take the most direct route from Bangkok to Rangoon, the loss of which would obviously be a crushing blow to us.

To block the main approach to Rangoon and to hold the aerodromes were the tasks for which the troops were already disposed in Lower Burma before my arrival. My orders were short and clear. I was responsible for the defence of Tenasserim from Mergui in the South to Papun in the North. The area was about 800 miles long, and a glance at a map depicting the long strip of Tenasserim will show how vulnerable it was to enemy columns striking from the East. As soon as any of these, however small, entered Tenasserim they were automatically astride our communications. But our aim was to delay the Japanese approach to Rangoon; and the more Lower Burma territory that was given up, the closer came the threat to Rangoon.

The troops at my disposal were as follows. At Mergui, which was a landing ground, there were a battalion and a half of Burma Rifles with some local Frontier Force. At Tavoy, another landing ground 300 miles to the North of Mergui, was one battalion of Burma Rifles. At Moulmein, 250 miles North of Tavoy, were the headquarters of the Burma Brigade and its third battalion—a battalion of the 12th Frontier Force Regiment from India. Also at Moulmein were the 8th Burma Rifles—comprising Sikhs and Punjabi Mahommedans enlisted from the local Indian element in Burma, and the only permanent garrison for the whole large Moulmein area with its important aerodrome. My divisional headquarters were to be located at Moulmein, with the headquarters of the Tenasserim Government. One hundred miles away to the East of Moulmein, guarding what was likely to be the main Japanese line of advance through the thickly-wooded Dawna hills, was my second brigade, consisting of one battalion each of Burma Rifles, 9th Jats and 7th Gurkhas and an Indian mountain battery. It will be seen that there were enormous gaps between units and that the line of communications was lengthy and unprotected.

It was futile to bemoan the paucity of troops. All possible reinforcements were being hurried out to Singapore, and we just had to make do with what we had. We were, of course, to get welcome reinforcements later, but on nothing like the scale required. Our preliminary dispositions were in fact the outcome of weakness based on bluff—and our bluff was very quickly called.

As for air power, we were lucky to have some most gallant and efficient American Volunteer Group airmen in Rangoon. This somewhat unorthodox volunteer formation did magnificent work. In all air raids on Rangoon subsequent to the first one in December, 1941, Japanese losses were very heavy. The A.V.G. was gradually reinforced by R.A.F. bombers and fighters as they became available from the Middle East and elsewhere.

The Army Commander was handicapped by having no proper military intelligence service and, from the time the Japanese invasion of Lower Burma started, no information came in from civil sources. It has been estimated that not more than 10 per cent. of the Burmese population were pro-Japanese. The

remaining 90 per cent. would, I am sure, have been actively pro-British but for our obvious weakness and inability to take the offensive. As it was, the organized pro-Japanese minority had an influence out of all proportion to their numbers, with the result that the enemy got good information, food, guides and animal transport and were always able to get hold of rafts and river boats when they required them.

To return to the 9th January, the day I arrived in Rangoon. Early next morning the Army Commander and I left by air to pay a visit to Lower Tenasserim. We landed at Mergui without incident after about two hours' flight. We flew North to Tavoy for lunch. The battalion there was very weak. Moreover, it was completely untrained, and I was not surprised, when the Japanese attack developed, that the defences were quickly overwhelmed. We arrived at Moulmein at 4 p.m., and the Army Commander left me there to return to his Headquarters in Rangoon.

At Moulmein, the Commissioner of Tenasserim happened to be an old friend of my father, and we established the closest liaison from the start. So far, only the air echelon of my Divisional headquarters had arrived, but they had been working hard. I spent two busy days looking round Moulmein and inspecting troops and defences. What a fascinating place Moulmein must have been in peace time! From a defence point of view, however, it could scarcely have been worse. The smallest perimeter which would include the aerodrome, the supply depots and the river-front quays (to which ran our main line of communication from Rangoon by steam ferry from Martaban) was 25 miles round. On three sides were rivers, crossable everywhere by boat and raft, and on the fourth side there was thick jungle through which ran innumerable tracks. Moreover, the quays and railhead at Martaban, 6,000 yards across the water on the far side of the Gulf of Martaban, had also to be held.

On 13th January I set off with three staff officers to visit the brigade on the Dawna hills. In our 100-mile drive through picturesque jungle we had to negotiate two river crossings by ferry. This was a tedious business, even for one car. I felt certain that if such crossings had to be attempted by troops and transport in face of air opposition, chaos would result, as there was only one ferry operated by Burmese boatmen. This did actually happen a little later; the ferry, with a lorry on it, sank in midstream and a mass of mechanized transport had to be destroyed. My C.R.E. got to work at once to improve this prehistoric method of river crossing, but there was not time for his plans to materialize.

On arrival at Brigade headquarters, we went straight up to visit forward battalions. We climbed a hill to a so-called viewpoint that merely enabled us to see the tops of a lot more jungle in front of us. One realized at once what a great advantage terrain such as this gives to an attacker, especially if he is in superior numbers. He has merely to go on infiltrating forward on a wide front, concentrating eventually on a pre-arranged objective. The tendency is for the defence, in an endeavour to block every route of advance, to make too many detachments, which only detract from strength at the decisive point. The ideal would have been to have feelers out in all directions consisting of platoons with wireless sets. Unfortunately, we were so short of wireless that sometimes we could give only one set to a battalion.

I found the Burma Rifles battalion of this brigade riddled with malaria—so much so that the brigade really consisted of only two battalions.

The brigade intelligence officer had been resident in this area for many years. He warned me—quite accurately, as it turned out—of an impending advance by a

Japanese division on Moulmein by this route. His was for some time the only intelligence we and Army Headquarters had to go on. Having had a long talk with this officer (who was unfortunately killed in the first clash), I decided to incorporate civil officers with local experience in my divisional staff.

On 15th January the remainder of my Divisional headquarters arrived in Moulmein, and we had our first visit from Japanese aircraft. We had a warning system, but it was not sufficiently efficient to warrant our keeping aircraft stationed in Moulmein. I was thankful when the system broke down and we only took cover when aeroplanes were overhead. While we had the sirens, all civil labour closed down for several hours during the day every time the siren went.

On the morning of the 15th the O.C. Tavoy rang up to report that a column of 300 Japanese was approaching Tavoy from the East. Having seen how weak Tavoy was, I ordered O.C. Mergui to reinforce him with half a battalion. Naturally, the Japanese refused to play our game by advancing northward from Victoria Point and thus allowing our posts to fall back comfortably in approved rearguard fashion. They made all their main advances from East to West, right up to the fall of Rangoon and after, and thereby continually had us in a quandary.

The defensive weakness of Moulmein was worrying me a lot. It was most important that it should be strongly defended, but we were very short of men and material. We were responsible for the long line of communications stretching from Mergui back to the Sittang bridge. Supplies came from Rangoon by rail and road to Martaban; thence by ferry steamer to Moulmein; thence on again to the forward troops by river, rail and road. Civil personnel running the rail, river and other services were very shaky under air bombing, and we were gradually forced to take them all over.

Here I must pay tribute to the Commissioner and civil officials in Moulmein. I have often worked with civil officers in India, but have never met a body of civilians so efficient and helpful as those drawn from the Burma Civil, Canal Service, Railways and the business community who worked with us for the first two months of the war in Burma. The Deputy Commissioner and the District Superintendent of Police, Moulmein, were two of the most able and stout-hearted colleagues one could wish for in times of stress.

On 17th January a force of fourteen Japanese bombers, escorted by five fighters, bombed Moulmein. They did little damage, but the Burmese population started a steady evacuation into the surrounding country and badly-needed labour became very hard to get.

Meanwhile, the news from Tavoy was ominous and on the 19th the place fell. That meant that Mergui was completely cut off, and action was accordingly taken to effect the evacuation of its garrison by sea to Rangoon. Meantime, Brigade headquarters from Moulmein with one battalion went down towards Tavoy to assist any portion of its garrison or civil population who had managed to get away by road. They did yeoman work and passed through refugees of all sorts, including the commander of the Tavoy garrison.

On 20th January the Japanese started their expected advance through the Dawna hills. It was supported by intensive dive-bombing attacks. One company of the 7th Gurkhas was bombed for four hours; the noise and the moral effect in the thick jungle were very great, but the actual casualties extraordinarily small. Faced with an infiltration advance through dense jungle, it is very difficult for the

local commander to get any reliable estimate of the strength of the opposition. Extremely varying reports reached Brigade headquarters. The Brigadier would certainly have been wrong to let the enemy get round behind him. He therefore fell back, blew up previously prepared demolitions along the road and withdrew his force to Kawkareik. Here, as previously mentioned, the ferry broke down and the small pool of mechanized transport, which was the only transport available, had to be destroyed, together with all equipment and food that could not be carried on the man.

The brigade then had a trying sixty-mile march into Moulmein; this was forced on it by dwindling supplies rather than by enemy action. The net result was heavy losses of transport and equipment, with few casualties inflicted on either side. The road, however, had been most effectively damaged and the demolitions slowed up the rate of the Japanese advance very considerably.

On 21st January Japanese aircraft were very active over Moulmein. Except for four Bofors, and two ancient anti-aircraft pieces at Martaban, we had nothing with which to oppose them. Two of our fighters did land in the afternoon just as a formidable force of Japanese aircraft came over. Our pilots refused to see their aircraft destroyed on the ground and very gallantly tried to get up and make a fight of it; but the odds were too great and they were both shot down. I decided that evening that all European and Indian women and children must leave. Divisional headquarters, now in the forefront of the battle, were ordered back to Kyaikto and a general redistribution of forces was initiated to fill the long gap still existing between us and Rangoon.

The Brigadier, General Staff, from Army Headquarters visited me on 23rd January, and we spent most of the day looking round the Moulmein defences. It was obvious that, with no defences to speak of actually constructed, to hold Moulmein was a difficult proposition. One brigade was the most that could be spared for its defence, and the eventual withdrawal of that brigade might prove difficult. However, the Army Commander was still hoping to be reinforced by at least one division, and the loss of Moulmein would greatly increase the air threat to Rangoon and also the danger of troops being landed there by sea. That day, the 23rd, we had a great air success over Rangoon, the Japanese losing nineteen aircraft for certain and another seven probably lost. The Air Force naturally pressed hard for the retention of Moulmein, and it was decided to hold it as long as possible with one brigade consisting of a battalion 12th Frontier Force Regiment, the 8th Burma Rifles (Sikhs and Punjabi Mahommedans), two battalions of Burma Rifles, a mountain battery and the aerodrome defences (the Kokine Battalion aerodrome guard and the Bofors guns).

In addition to the troops in Moulmein, we had farther North the brigade withdrawn from Kawkareik, which was being reformed and re-equipped at Martaban, and one of the original brigades of the 17th Division just arrived from India at Bilin. This latter brigade consisted of one battalion each of the 7th Gurkhas, 17th Dogra Regiment and 10th Baluch Regiment. The brigade was by no means fully trained and of course had had no experience of jungle warfare. It had, however, a full complement of carriers which came in very useful later on for road protection.

The enemy gradually closed in on Moulmein, and on the morning of 30th January his attack started. By evening about two Japanese regiments were in contact and the garrison was virtually cut off, except for telephonic communication. Up

to nightfall we did quite well. The Japanese were obviously using good troops; the employment of their artillery, the co-operation with their air arm, and the skill and determination of their infantry were all first class. In places, however, they suffered severe casualties. The aerodrome defences proved a hard nut to crack. But the extended and feebly-fortified Moulmein perimeter could not be manned in sufficient strength. The situation deteriorated, the defences were penetrated in several places and the aerodrome was cut off. The ferries were still intact and on the Moulmein side of the water, but the strain on the crews was proving too great. Once the crews or the ferries went, all chance of evacuating the garrison would go too. I informed the Army Commander of the situation and he left it to me to do what I deemed best. After a final talk with the commander at Moulmein, I ordered him to start withdrawing at dawn and arranged for Rangoon to put up the strongest possible air umbrella to cover the operation.

The morning of 31st January was marked by much confused fighting as the garrison fought its way down to the quays. The journey by ferry across the water under shell and machine-gun fire was a nightmare. Several craft were sunk and a number of men drowned. There were many deeds of gallantry, and the 12th F.F. Regiment, 8th Burma Rifles, the mountain battery and Royal Engineers particularly distinguished themselves. That the bulk of the force was withdrawn safely in daylight reflects the greatest credit on the officers and troops concerned. There were a good many casualties. We lost our four Bofors guns and a good deal of equipment, but very little transport, as most of it had been evacuated beforehand. The Indian mountain battery did splendidly to get away its guns complete.

After the evacuation of Moulmein, our new dispositions were still ordered mainly with the idea of yielding as little ground as possible, so as to give Rangoon elbow room and gain time for the southward move of Chinese forces. This resulted in considerable dispersion, which was certainly bad from a purely tactical point of view. Our new dispositions were as follows:—The southernmost brigade had one battalion at Martaban, Brigade headquarters and one battalion at Thaton, one battalion at Paan on the Salween river—an obvious line of approach from the East—and a fourth battalion at Duiyzeik, an important river crossing connecting Thaton with Paan. Another brigade was at Bilin, with one of its battalions 80 miles to the North at Papun, the northern limit of my responsibility. The brigade which had been in Moulmein was moved back to Kyaikto. It had to find detachments as far back as the Sittang river bridge, a large and vital railway bridge on which our communications with Rangoon depended. Sappers were working feverishly to enable it to take road as well as rail traffic. The road, through dense jungle, running back from Kyaikto to Sittang was in process of construction; it was in a terrible state, feet deep in thick dust.

During the first week of February, while the enemy was making a close reconnaissance of our positions, I got a very welcome addition to my strength in the Gurkha Brigade from the 19th Division. Unfortunately it arrived very short of pack transport, of which we were so greatly in need. I placed it between Bilin and Kyaikto in divisional reserve.

On 10th February the Japanese took Martaban by a combined sea-landing and land attack. The battalion of 7th Gurkhas defending the place was heavily outnumbered and had been subjected to a week's intermittent air bombing and shelling.

On 12th February the 10th Baluchis at Paan were overwhelmed by a heavy enemy attack in four-fold strength. They were a young battalion, but they fought like veterans. Heavily dive-bombed and subjected to intense mortar fire, they were encompassed on all sides and the fighting became hand-to-hand. The Commanding Officer was killed, but the companies fought on under their own officers as long as any organized resistance was possible.

It had now become so obvious that our wide dispersion was leading to defeat in detail that the Army Commander's sanction was obtained for the concentration of my division behind the Bilin river. The Japanese tried hard to circumvent this by forced marches through the jungle. We, however, made full use of the road and railway and got back with all our stores and transport complete—just in time. As the King's Own Yorkshire Light Infantry (just arrived) got into their position, they met a Japanese battalion and the action was soon general.

From 15th to 20th February two brigades fought what was estimated to be a whole enemy division on the line of the Bilin river. We had orders to hold this line till Army Headquarters gave us permission to withdraw. The fighting was close and hard. The 4th, 5th and 7th Gurkhas and the K.O.Y.L.I. particularly distinguished themselves and, wherever ground was lost, regained it by counter-attack. Our Air Force supported us most effectively.

By the 19th it was clear that Japanese in strength were moving round our northern flank. To meet this threat, I sent forward the only battalion remaining in hand at Kyaikto—the 12th Frontier Force Regiment. Its action was partially successful, but there was every indication that the enemy had been strongly reinforced. We learnt later that a complete new division had been passed round our northern flank to "cut off and destroy the 17th Division at Sittang." On 20th February I received orders to withdraw. The forward troops broke contact skilfully as soon as it got dark. The enemy followed up warily.

So ended the Bilin battle, the most severe action of the Burma campaign and one in which our troops acquitted themselves well. It was the first time that we were able to give battle in force, supported by some artillery and on ground of our own choosing. Although increasingly outnumbered, the troops gave no ground until ordered and thus again gave Rangoon and the Higher Command valuable respite in time. The troops, however, were desperately tired—only during the last stages of the Dunkirk operations have I seen men as weary. It seemed highly doubtful if they would be able to reach Sittang before fresh Japanese troops cut in behind them; but morale was extremely high, and that helped enormously in keeping the men on the move.

Throughout the 21st February our retreat went on, and all through that night the weary troops came in to Kyaikto and were pushed on again after only a few hours' rest. In the early hours of the 22nd, my Divisional headquarters, located in the gaol at Kyaikto, was attacked by a party of the enemy which had been landed by sea and had crept through the jungle. Failing to effect surprise, this party drew off at daybreak.

Our withdrawal on Sittang continued on the 22nd. The Sittang bridgehead defences had been strengthened and they were now held by the 12th F.F.R. battalion, the remnant of the 10th Baluch battalion, a large detachment of Burma Rifles, one company of the newly-arrived Duke of Wellington's Regiment, with some mountain and anti-aircraft guns. Enemy air action throughout the day was

very severe. Our fighters did their best to give us some protection and shot down several Japanese bombers.

By nightfall Divisional headquarters, with the Gurkha Brigade, were at the Mokpalin quarries, a few miles East of the Sittang bridge. The remaining brigades were moving back to Sittang, having destroyed the river bridge at Kyaikto and thus delayed the pursuit.

The Sittang bridge was just ready to take wheeled traffic. From the late afternoon of the 22nd onwards through the night a steady stream of transport and non-combatant units was passed over, and it really looked as if we should get across in time. The Japanese did not bomb the bridge, as they wished to capture it intact. In the evening a staff officer from Army Headquarters arrived with the news that a Tank brigade had reached Rangoon, was disembarking with all speed and would join me as early as possible.

At 3 a.m. on 23rd February, with the road getting clearer of transport, our march was resumed. Everything was absolutely quiet. Army Headquarters had informed us of the likelihood that the enemy might try to land troops by parachute on the open ground West of Sittang to take the bridge from that side. It was important therefore that the Gurkha Brigade should get across without delay.

On approaching the bridge we found that a lorry had overturned in the middle. For three hours the bridge was blocked—what vital hours these turned out to be! Eventually the obstruction was cleared. Divisional headquarters, Gurkha Brigade headquarters and the 4th Gurkhas passed over.

Suddenly, from the thick jungle to the North, the Japanese launched a heavy attack on the bridgehead defences. The defence gave way. A counter-attack was organized at once, and it was carried out with great determination. The bridgehead was regained and the Japanese withdrew, taking my A.D.M.S. and several other officers with them. They were, however, soon strongly reinforced and they interposed a solid barrier between the bridgehead and the remainder of our troops to the East.

The enemy's strength was now two divisions—the fresh one which had been working round our northern flank and the somewhat mauled formation which we had engaged at Bilin. The 3rd and 5th Gurkhas were at once in action in a determined effort to join up with the bridgehead defences. Behind them to the East the rest of our troops were also soon engaged from all sides.

The fighting developed quickly into a close jungle battle over which no officer senior to a battalion commander had any control. Our troops fought well, but they were unable to break through to the bridge. After a preliminary wireless message from me telling all brigadiers the situation, communications broke down. Only from the noises of battle was it possible to tell roughly what was happening. At 3 p.m. the bridgehead defences were very heavily and accurately shelled, and the bridgehead was again lost. The 4th Gurkhas were put in to retake it, and the situation was once more restored. The engagement continued throughout the night.

At 4 a.m. on the 24th the Brigadier in charge of the bridge defences reported by telephone that Japanese pressure had increased and that he could not guarantee to hold the bridge for more than another hour. It was a difficult decision to make—to blow a bridge, knowing that three-quarters of one's troops were on the wrong side of it. However, there was no doubt as to the right course. If the enemy gained

the bridge, not only could he push over a whole division straight towards Rangoon but, with both banks of the Sittang in his possession, the chance of getting more of my troops across the river would be remote. I told the Brigadier to blow.

The bridge was most gallantly blown by the Sappers under close fire. The effect on the Japanese was immediate. Having failed in their object they drew off. Parties of our men in broad daylight started to swim and float themselves over. The Sittang is a nasty river to swim. Men who did so had to divest themselves of most of their clothes and certainly their boots. On arrival at the far bank they then had some distance to walk on stony ground. The feet of officers and British ranks unused to walking barefoot were in an appalling state.

The divisional staff now had a problem of evacuation, re-clothing, re-equipping and feeding far more harassing than all former problems. Fortunately, the Japanese had definitely had enough. They allowed us to run trains and lorries to within a mile or two of the river to bring back the wounded and lame.

The enemy's casualties had undoubtedly been heavy. An escaped officer estimated that there were 2,000 Japanese dead in the vicinity of the bridge alone. Our losses were also heavy—three valuable battalion commanders killed and many other officers and men, besides losses in guns and equipment. Much gallantry was displayed. The 3rd and 5th Gurkhas distinguished themselves particularly, as did the two British battalions, the K.O.Y.L.I. and the Duke of Wellington's Regiment. The latter battalion had only just arrived and had to be put straight into action.

The Sittang battle is a fitting climax to the first phase of the operations. We learnt many lessons. We were undoubtedly unprepared for jungle fighting and our troops were not trained for it. No true picture can be seen of the early fighting in Burma unless it is clearly borne in mind that dispersion and long lines of communication were forced on us by factors other than tactical necessity.

It has been said that our troops were road-bound and M.T.-minded. We should have liked more animal transport, of course, for tactical movement and actual fighting; but without our railway, good M.T. road and modicum of mechanized transport we could not possibly have maintained troops so widely dispersed or got them back so quickly to other dispositions.

It would be idle to compare the early operations in Burma with the Battle of Flanders. The tempo was much slower and the commander had a long time—too long—to think. I am convinced, however, that jungle fighting demands a higher standard of individual training, specialist training and junior leadership than any other type of warfare.

THE RUSSIAN ARMY

By MAJOR J. V. DAVIDSON-HOUSTON, M.B.E., R.E.

CO-OPERATION between Allies has always been more difficult than between different arms or portions of the same forces, largely on account of mutual ignorance of each other's psychology and methods. This ignorance is especially pronounced in the case of ourselves and Soviet Russia, from which we have hitherto been separated by political and geographical considerations. The following notes, based on the writer's experience of liaison with the Soviet Army in Persia and on previous acquaintance with the country and its language, have therefore been compiled in the hope that they will be of interest, and perhaps of practical use, to British officers.

The population of the Soviet Union, amounting to approximately 175,000,000, is theoretically capable of placing some 18,000,000 men under arms, and in 1942 was able to oppose nearly 300 fully-equipped divisions to the Germans. In the naval sphere, Russia has always suffered from the disadvantage of having to divide her forces between her northern, Black Sea and eastern waters, and she has become a great land Power rather than a maritime one. The outlook of the average citizen, who in peace-time receives compulsory training in the Army on reaching the prescribed age, is that his country's defence is primarily a military problem; this naturally colours his views on Allied strategy.

The U.S.S.R., like the British Empire, is made up of a number of constituents inhabited by people of various races. But there are far fewer social differences between the Soviet peoples than there are between, say, Australians and Indians, and an army unit may be composed of men from every part of the Union. Many languages are spoken and officially recognized, for the Government does not wish to emphasize the Russian preponderance, and the term "Soviet Union" was deliberately substituted for "Russian Empire." Russian, however, is the *lingua franca*, and those who cannot speak it are taught it in the Army.

Prior to the industrial revolution wrought by the Five Year Plans, the vast majority of the people were peasants; even now these form the greater part of the population, while the factory workers come mostly from peasant families. The Army, therefore, unlike that of Great Britain, consists largely of country-bred men, with the usual characteristics of hardiness, stolidity and simplicity. The soldier believes implicitly what Authority tells him, obeys orders without question, and is prepared to fight literally "to the last man and the last round" in defence of his soil.

After the Civil Wars, the Soviet Government had to form the Red Army practically from scratch. Owing to the unreliability of most of the former officers and the "liquidation" of the class from which they were largely drawn, it became necessary to draw on the proletariat for both officers and other ranks. By selecting the most suitable men and specializing their education at officers' schools, good officers have been produced. Those encountered have given the impression of keenness, seriousness and a thorough knowledge of their own arm. The chief weaknesses, due in great measure to the lack of education and tradition in the past, were lack of initiative and ignorance of matters outside specialized duties. Hardly any of the officers met by the writer could understand a foreign tongue, and the few

that could do so had wisely devoted their attention to German. Bolshevik propaganda had originally aimed at abolishing the authority and privileges of officers, and the word "officer" was expunged from the military vocabulary. The passing of the revolutionary period, together with war experience, have since brought about a gradual increase in the prestige of commanders. The orthodox titles have been reintroduced, and epaulettes have recently been adopted to distinguish them; even that check on the commander's authority, the Political Commissar, has been done away with. In short, it may be said that to-day the position of the Soviet officer, relative to the rank and file, differs in no material respect from that in other armies.

When the Red Army was first formed, Political Commissars were established at the headquarters of all formations and units down to platoons. They were members of the Communist Party and their main function was to ensure the political reliability of the commander and his subordinates. With this end in view, all orders were required to be countersigned by the Commissar of the formation or unit concerned, with obvious disadvantages. As the original reason for their existence became less essential, they began to take on the duties of Education, Welfare and Public Relations. During the Persian operations they were the means of liaison between the Russian Army, the local inhabitants, the Soviet Embassy and the British forces. At that time the undesirability of a virtual political department concerning itself in the command and administration of units, with the accompanying risk of mutual dislike and suspicion, was mitigated by assimilating the two branches and making officers interchangeable between them. The inevitable final step was taken in October, 1942, when the abolition of Political Commissars was announced.

A study of the history of the Russian people gives the impression of a great, inert mass, stirred to its depths at widely separated intervals by some inspiring cause. The fight against the Tartars rallied all the Russians beneath the standard of the Prince of Muscovy: Alexander Nevski led an eager people against the Teuton menace; universal hatred of the Napoleonic invader was the cause of his disaster in 1812; history is now repeating itself. It is interesting to compare these campaigns with those in which successive Russian Governments have urged their people to acts of aggression. The Crimean War was the outcome of the Czar's ambitions in the Balkans and the Straits; the desire to control Manchuria and Korea led to the Russo-Japanese war; and Russia's part in the First World War was caused largely by political strategy which was ill-understood and little sympathized with by the masses. It emerges that the Russians do not fight with enthusiasm for any cause which is not readily comprehended by the people; for this reason the bugbear of the Indian North-West Frontier may be suspected of having clay feet.

Defence of its own soil, therefore, is the chief motive behind the energy and self-sacrifice displayed by a normally passive race. Its imagination, moreover, is roused by display and oratory to an extent foreign to the British. When a joint ceremonial parade was held in Teheran during the Winter of 1941/42, the British participants were surprised to observe that the Soviet cavalry carried their squadron and regimental standards and that their officers' chargers wore coloured saddle-cloths embroidered with gold. Their units gave concerts which were enlivened by dances in native costumes, and a horse show was organized at which the ground was decorated with red screens sporting the portraits of Lenin and Stalin. These trappings had been carried into Persia by troops on active service, despite the

fact that one of the regiments is known to have arrived without blankets owing to lack of the necessary transport.

Throughout the stern and drab years that followed the Revolution, the Red Army remained contented and loyal to the Soviet régime. It was, indeed, a privileged class. During the writer's brief tour of Siberia and Russia in the Autumn of 1938, he remarked that the men of the fighting Services were well-paid, well-fed, well-clothed and cheerful. They had their own shops, and their own restaurants and rest-rooms in many places. Their conditions of life compared favourably with those of other sections of the population. At the same time, it is a far cry from the Workers' and Soldiers' Councils of the Revolutionary period. Discipline is now strict, and a superior's order is unquestioned. "Comrade-Colonel" is addressed from the position of attention and with the hand at the salute. The officer, for his part, is permitted none of the excesses nor negligences which brought many of his Czarist predecessors into contempt.

One of the most potent causes of indiscipline in the former Army was drink. The Russian, especially in cold weather, is fond of vodka, and vodka contains a high proportion of raw spirit. In the Red Army, drink is strictly controlled, and the writer has never seen one of its soldiers drunk in public. During the occupation of Teheran, Soviet troops were not allowed to "walk out" in the town, and when one of our brigades entertained a party of Russian soldiers, the officer in charge confided that the "commanders" would be pleased to drink anything that was offered, but that the soldiers might drink only beer. Considerable apprehension was felt by the Persians at the prospect of a Russian occupation, owing to the memory of the excesses perpetrated in former invasions. In 1941, however, there were no well-founded allegations against the conduct of these troops.

Successive Russian Governments have discouraged the uncontrolled study of foreign countries and ideas and the unrestricted movement of foreigners in their territory. The natural results of this have been suspicion of foreigners and ignorance of the world outside the Soviet Union. An American engineer of the writer's acquaintance once visited an establishment at Vladivostock which was guarded by a sentry. After a short conversation between the sentry and the American's Russian guide, the latter explained that the soldier had asked the foreigner's nationality. When told that he was an American, the sentry exclaimed: "American? I did not know that they were white." This condition was again emphasized when a small column under the writer's command encountered a unit of the first Russian troops to enter Persia. A Soviet officer, after enquiring whether the British troops were part of the Persian Army, demanded why they had violated Persian neutrality.

This suspicion, however, has had considerable value in the enforcement of security measures. A country that was until recently divided against itself becomes security-minded, and in Russia silence is as golden as the penalty of indiscretion is leaden. Whereas the normally care-free Briton is apt to discuss openly any matter that is not specifically taboo, the Russian soldier is trained to refrain from talking on military subjects unless there is an adequate reason for doing so. The writer once dined with Lieut.-General Novikov, commanding the Soviet forces in Persia. One of the party was the General's female A.D.C.; this lady would answer hardly any question even most remotely connected with the Army without a glance at the General and an assenting nod from him. The Russians in Persia showed great reserve on first meeting their new Allies, and British officers were not permitted to move freely in the area occupied by their troops. When General Wavell paid

an official visit to a Soviet cavalry regiment and one of his staff asked the number of horses on the establishment, the zealous commanding officer naively replied: "Many, many."

A day spent with a Russian cavalry regiment shows a few interesting differences from the British routine. Early stables were followed by a breakfast of tea, black bread and *kasha* (a kind of porridge), and the rest of the morning was spent in uninterrupted training. The activities witnessed included horse exercise, officers' riding school, physical training, lectures, and a great deal of drill. The physical training entailed work with apparatus in jacket, breeches and boots; a lecture was given by a political officer on the reasons for the Anglo-Russian occupation of Persia, and individual soldiers were called upon to give the "correct" answers to questions; dismounted drill was executed by troops, each man being in marching order and carrying his rifle or automatic weapon. After mid-day stables, each section drew from the cookhouse a bucket of soup containing vegetables, meat and pieces of black bread. There was no activity in the afternoon, but at about six o'clock the men began to indulge in such recreations as chess and the playing of musical instruments. Frequently a performance was given by the regimental entertainment unit, of which more anon. The last meal of the day is a supper of which the chief constituents are the inevitable tea and black bread. The Russian diet may seem monotonous to us, being largely composed of a two-pound ration of black bread; there is, however, no question but that it does not damage the hardy physique of the soldier. The writer remembers with amusement the horror of a party of British N.C.O. instructors, detailed to hand over a consignment of tanks, when the first meal set before them by their hosts consisted of a bucket of soup into which they were expected to dip.

Recreation is dealt with on somewhat different lines from those pursued in the British Army. Russian garrisons are frequently situated at a great distance from any town, and it is accepted that the troops must depend upon their own resources for amusement. Each regiment therefore produces its own newspaper or magazine, and is accompanied wherever it goes by its entertainment unit, which includes a wireless loud-speaker and portable cinema. In addition, the regiment trains a troupe of singers and dancers, the quality of whose performance, due to the Russian theatrical flair, is very high indeed. While making due allowance for the difference in national tastes and characteristics, it is suggested that the morale of our own troops on active service or in lonely garrisons would be well maintained by organizing entertainment *within the brigade or battalion*. The necessary talent would never be wanting in the war-time composition of units.

The organization of the Russian Army follows the lines common to most armies, a characteristic feature being the division composed of three regiments, each comprising three infantry battalions with a field and an anti-tank battery and other supporting arms. There is no corps organization, armies being sub-divided into a number of cavalry, tank, mountain or infantry divisions.

The arms and equipment appear well-made and durable, and have stood the test of service. Russia, alone among the United Nations, had before the War organized an immense munitions industry, and her reserves of material were adequate for a first-class modern campaign. A characteristic of the uniform is its adaptation from the national costume. All ranks of all arms wear a serge blouse, gathered by a belt, with skirts that hang outside the breeches. These are baggy, and are tucked into black soft-leather kneeboots. The boots are easily slipped on

and off, give protection from snow and damp, and are suitable for marching or riding. In addition, tank units are equipped with special helmets and overall suits. For cold weather, the men carry a soft, wool-lined or fur-lined cap with flaps that can be let down over the ears. For "dress" occasions a thin white blouse is worn over the other clothes. The troops in Persia had no hot-weather uniform, and the members of the Soviet Military Mission in Baghdad suffered such discomfort from the heat that they improvised costumes in khaki drill with the help of a local tailor. Sun helmets are unknown, and a Russian officer, after examining one of ours, remarked quite seriously: "Surely these are not bullet-proof?"

The Russian Army possesses large cavalry forces for reasons exactly opposite to those which have unhorsed the British. Enormous reserves of horses and of men accustomed to them, the continued use of horses in civil life, and a terrain ill-provided with roads, have led to the retention and successful employment of horsed formations and animal-drawn first-line transport. The officer's charger is a long-legged, long-backed, awkward-looking animal, bred from English sires out of Danish mares, and his cross-country capacity and endurance are belied by his appearance. The troop and draught horses are of various breeds, largely Kirghiz, Turkoman and from other Central Asian districts. Their hardiness and the standard of horsemanship may be measured from the fact that two cavalry divisions entered North Persia by cross-country tracks through the Caucasus, and that the units seen at Teheran showed very few cases of lameness and sore withers. Horses from the hard ground of the steppe country were shod only in front, and the hind feet did not suffer from the going. The men carry a rifle and bayonet in addition to a sabre. Trick riding is popular, especially with the Cossacks, and the agility of the men is developed by gymnastic work in boots.

Mechanical maintenance, as might be expected in a recently industrialized country, was once the weakest link in the military chain; but keenness, experience and hard work is rapidly raising the standard. Moreover, the reserves and expanding war industries have helped to make up for losses in vehicles and the western factory areas. An interesting antidote to the effects of cold weather is the practice of draining vehicles of lubricating oil when halted for the night; the oil is warmed and poured back before starting. The answer to the objection that starting is thus delayed, is that the delay might be much longer in starting from cold.

The artillery has always been a *corps d'élite* in Russia; it played an outstanding part at Borodino, in the Crimea, and in checking the German armour advancing on Stalingrad from the South-West. A considerable proportion, both field and regimental, is horsed.

The infantry, many of whom were in 1941 still armed with the old type of rifle and long triangular bayonet, have been equipped with a self-loading rifle and a short flat bayonet similar to our own. The ceremonial march-past is an impressive movement; the writer watched it executed in column of eights, each man carrying his rifle, with fixed bayonet, in a position suggesting the "on guard."

The impression given by the Soviet Union and its land forces is that of the creation, in an incredibly short time, of a first-class army from the ruins of an inefficient and ill-equipped one. Its peoples, having lived virtually under war conditions ever since the Revolution, have long been trained and ready to resist aggression. Its Government, alone among the United Nations, has profited by the lessons of the Far East and of Finland, and has been able to confront the Germans with an army comparable in numbers and material.

THE FRIGATE

By FRANK C. BOWEN

THE introduction of new types of men-of-war designed to meet the changing requirements of naval warfare has necessitated the adoption of additional nomenclature to classify them. Quite recently the term "frigate" has been revived to distinguish one new class. The modern counterpart of the original frigate has hitherto been accepted to be the cruiser; if, however, the question is asked why are the new vessels called "frigates," the reply may well be the same as that of the professional to the cricket enthusiast's query, "Why do you call it a Yorker?"; "Well, what else would you call it?" Moreover, the old class name is well worth reviving, for the frigates were, perhaps, the most useful and romantic ships during the most interesting two-hundred years of British naval history.

In the mediæval days of short distance warfare small craft were attached to the fleet—ballingers, barges and the like—and galleys fulfilled some of the cruiser's functions, but it was not until after the sailor learned to beat to windward properly—some time in the XVIth Century, that the real cruiser came into being. The ship's longboat grew into the decked pinnace which sailed independently, acted as a tender and maintained some sort of an outpost line. The "Lion's Whelps" of the early XVIIth Century were the first British effort to build a true "cruiser." The idea of these craft was good but the design was bad from a variety of reasons. They were too short for speed, too clumsy for sailing, and very ill-built by the contractors, who were employed as something of an experiment. They were, in fact, a great disappointment in every particular, but at a time when practical sailors were replacing soldiers at sea they pointed the way to better things.

The ship that is usually given the credit for being the first frigate proper is the "Constant Warwick," which was designed as a privateer and built by Peter Pett in 1644. She was owned by a syndicate of gentlemen adventurers who were practical sailors and they aimed particularly at getting a handy and weatherly ship. The legend is that her design was based on that of a French frigate seen in the Thames, but that has been doubted. She was 85 ft. long on the keel, with a beam of 26 ft. 5 in.; 315 tons burthen, by the rules of the day, and she mounted 32 very miscellaneous guns. Originally hired by the Navy for commerce protection, and going privateering between whiles, she was finally bought by the Commonwealth Navy and did remarkably well until she was rebuilt in 1666 to routine naval ideas and, as the contemporary observer had it, was "changed from 26 guns and an incomparable sailer to 46 guns and a slug." It was this sacrifice of her weatherliness that caused her to be captured in 1691. Her qualities before she was spoiled gave the Navy something to aim at; until then privateers, fruiters and slavers had been the only ships which were designed for speed. The desire of the Commonwealth Navy to build frigates outran performance, but the idea was sound and it was probably the government's appreciation of their possibilities in capturing enemy merchantmen and earning prize money that largely influenced the establishment of Prize Bounty, which gave the crews of the big ships their chance by the sinking or capture of enemy warships. The French frigates, when Colbert had started his school for scientific naval architecture, and the privateers from the

Low Countries were particularly successful, and when Charles II was King with his brother the Duke of York as Lord High Admiral and both practical seamen, great improvements were made and prizes were carefully copied. In Cromwell's day the biggest frigate, nominally a fifth rate, was 300 tons burthen, mounting 24 guns, with a crew of 90 men; but the tendency was to make them more powerful although their dimensions were naturally restrained by the "establishments." By James II's reign 32-gun frigates were popular, the biggest having a burthen of 333 tons on dimensions 86 ft. on the keel by a beam of 27 ft. and a nominal complement of 135. The Dutch, taking particular care of their merchant shipping and making a great study of convoy matters, built some of the finest frigates in Europe in the latter part of the XVIIth Century, ships which had a far higher reputation than their line-of-battleships.

The XVIIIth Century was the halcyon period for the frigate, but her reputation was more often on account of the romantic work that she did than for her design. Contrary to the usual belief, the general run of XVIIIth Century frigates was not much faster than contemporary battleships, especially with a good breeze, but they were much handier and more weatherly so that they could escape the heavier metal. Colbert's encouragement of naval architecture in France had a particular influence on the design of frigates, which were more scientifically planned than their line-of-battleships, and which had the reputation of being faster than the British, holding their wind better, and excelling them in beating off a lee shore. The French considered that the British spoiled their frigates as cruisers by giving them too many guns and any number of prizes lost their essential qualities when they had been rearmed according to the British "establishment" for their tonnage. The French belief in corsair warfare caused them to maintain a large proportion of frigates compared with line-of-battleships, while our neglect of the type, especially in the first part of the XVIIIth Century, handicapped us badly.

In the middle of the century an attempt was made to build 44-gun two-deck frigates, known as "the worst vessels in the British Navy," but the outbreak of the Seven Years War in 1756 gave the Admiralty a lesson: ships of 28, 32, and 36 guns were brought in. The thirty-twos, mostly from the design of Sir Thomas Slade, were particularly popular and were built in considerable numbers. At about the same time the very short poops which had been the fashion, especially in the smaller classes, were carried forward to the mainmast and the ships were greatly improved.

Although it was troublesome at first their efficiency for long-range work was increased by copper sheathing introduced in H.M.S. "Alarm" (32) in 1761. Several 28-gun frigates were captured from France and Spain in 1779 and 1780 and proved popular; the first British-built was H.M.S. "MINERVA" of 1780 with a tonnage of 938 which was carried to over 1,000 in subsequent designs but even that was not too much.

In 1792 H.M.S. "Acasta" was launched, the first British-built 40-gun frigate intended to fulfil the functions of the unsatisfactory two-decked forty-fours. She had a tonnage of 1,142 and mounted thirty long 18-pdrs. on her main deck and ten long nines on the quarterdeck and forecastle. These latter were later replaced by sixteen 32-pdr. carronades. Her hull showed the designers' tendency to increase the proportion of length to beam and she was the model for a number of frigates built in the early days of the Revolutionary War which started in 1793.

That and the Napoleonic War which followed it made the Golden Age of the frigate and the records are full of stories of dashing actions. The French policy of

corsair warfare demanded innumerable ships for commerce protection; the majority were of the smaller types but there were a considerable number of frigates of various types—32, 36, 38, 40 and 44 guns—as well as the donkey frigates “which bore the same relation to a real frigate as a donkey did to a horse” but whose appointments were very useful in naval politics. Among the biggest and most successful was the 1,277-ton “Endymion” (40), which was copied from the captured French “Pomone” with about 8 in. more beam. Ship for ship the French frigates were still considerably superior to the British, but they were constantly captured by superior gunnery; 24-pdr. ships were repeatedly made to strike by our vessels mounting nothing heavier than the 18-pdr. long gun.

After the success of the converted East Indiaman “Glatton,” armed solely with 68 and 42-pdr. carronades, in defeating a squadron of five French frigates, there was a craze for these short-range pieces for British frigates. They were put to good use if the ship could be laid alongside the enemy, but often they were prevented from getting the greater part of their armament into action. The carronades were omitted from the rating of a frigate’s armament, often some of the long guns as well, so that it was a very misleading indication of her power. Many 38-gun frigates carried 46 long and short, and thirty-twos carried 38. H.M.S. “Phoebe” (36) had 26 long 18-pdrs. and 20 32-pdr. carronades and H.M.S. “Endymion” (40) carried 28 long 24-pdrs., 2 long 18-pdrs. and 20 32-pdr. carronades. The American rates were just as deceptive—the famous forty-fours generally mounted 32 long 24-pdrs. and 22 32-pdr. carronades—but the French were more logical.

Nelson was not the only British Admiral who was constantly crying for more frigates, yet in the January after Trafalgar the Navy had no less than 164. Sixty of these were prizes taken from our enemies, of which the most numerous were the large 38-gunners (15 out of 30) and the 12-pdr. thirty-sixes (18 out of 19).

In the unhappy American War of 1812-1814 a great stir was made by the operations of the big American frigates “Constitution,” “Constellation” and the like, which were nominally 44-gun ships, actually 54 guns and carronades, and they easily defeated any normal British frigate, even though she was also misdescribed, whenever they met. It was unfair to describe them as “disguised seventy-fours” as was often done at the time; they were a big forward stride in frigate design and were capable of carrying out many of the liner’s duties. They were so successful that they caused a great desire to build up to them instead of building more seventy-fours to deal with them. The Admiralty hurriedly contracted for 40 fir or pitch-pine frigates of from 38 to 50 guns which were so unsatisfactory that they were always called “The Forty Thieves.” Some of them were conspicuously free from every quality desirable in a frigate, especially the two-deckers. The 50-gun “Glasgow” was regarded as one of the best of the class but she was worn out and scrapped within fifteen years.

After the Peace, Seppings greatly increased the strength of H.M. ships—in the big frigates by a combination of thick strakes and iron riders, and later Symonds improved the hull lines. He had the great advantage of being freed from the shackling “establishments” and produced excellent results. Bigger overseas squadrons were maintained and the 50-gun frigates were made useful flagships, showing the flag with dignity.

The introduction of steam into the Navy, and its extension from the purely auxiliary types to the fighting ships, led to the paddle frigate, which was always

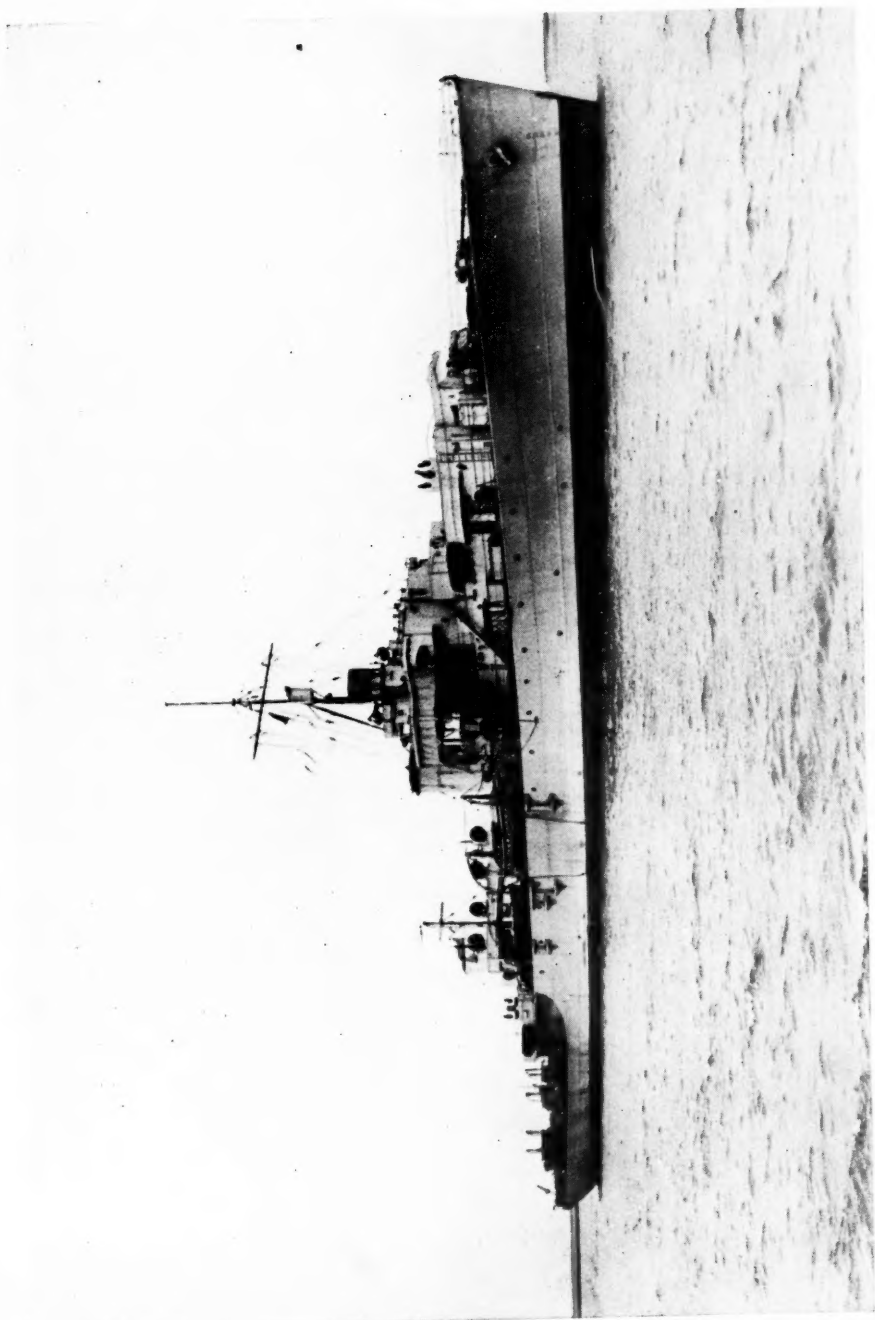
acknowledged to be a makeshift adapted only until the vulnerable paddle wheel could be replaced by some better means of propulsion. In spite of this vulnerability, however, they were useful for many duties although they were criticized because the break in their broadsides for the paddle boxes and long sponson houses necessitated their being armed with a few big "smasher" guns instead of more numerous lighter and quicker-firing guns considered more suitable for a frigate's functions. Officially the paddle frigates were distinguished from the paddle sloops by the fact that they mounted their guns on two decks instead of one, but actually it was more a matter of size. These ships generally sailed quite well until they were heeled sufficiently to drag their lee sponson; their bunkers were too small for them to perform a cruiser's duties under steam.

After the famous tug-of-war between the screw frigate "Rattler" and the paddler "Alecto" had proved the superiority of the former method of propulsion, any number of auxiliary screw frigates were built or converted. At first they depended on their sail power for most of their cruising, but less so as technicians steadily improved the screw propeller. In practically all of them, however, the engines proved too much for the wooden hulls. Those which were laid down as sailing ships and lengthened on the ways to be completed as steamers, in particular, proved very weak aft, leaking badly and vibrating excessively when under power. These ships returned to the broadside principle, mounting numerous guns of medium calibre instead of the few very big guns which had been mounted in the paddlers, and for this reason, among others, they were far more suitable for a cruiser's duties. When they were under sail for making a passage of any length the drag of their screws was dealt with by various means. Some ships hoisted them up on a banjo frame, some let them run free, while others had two-bladed propellers which locked on the up-and-down position and offered the minimum of resistance.

After the introduction of the ironclad there was a tendency to neglect the frigate for a while. Then a number of screw frigates, heavily rigged, were built, but the name "frigate" fell into disuse rapidly and the introduction of horizontal protection in the 'seventies saw them all classed as "cruisers" with the ships of the new type, except by the most conservative who clung to the old name just as Lord Charles Beresford referred to destroyers as torpedo catchers to the end of his days.

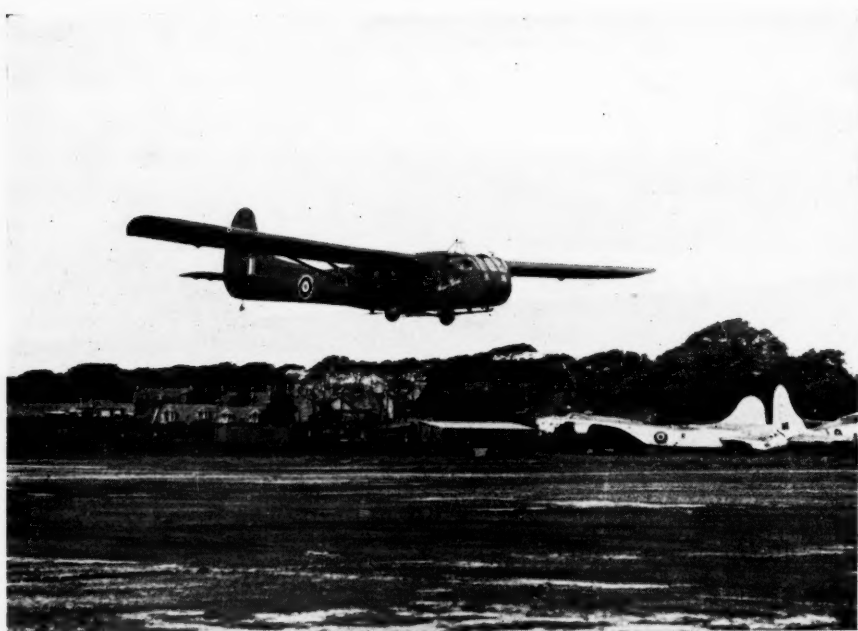
No details have been published of the frigate class of to-day, but *Jane's Fighting Ships*¹ for 1942 mentions by name two of the twenty-four ships named after British naval officers now completing in the U.S. Navy Yard at Mare Island, California. These are H.M. Ships "Bentinck" and "Duckworth." It is understood that more will be built under the Lease-Lend Act in the same yard, and still more in British yards. It has been mentioned in the American press that these ships are about the size of a destroyer. The names are also given of some of the "River" class, with the statement that there will be others.

¹ A review article of this publication will appear in next quarter's JOURNAL.—EDITOR.

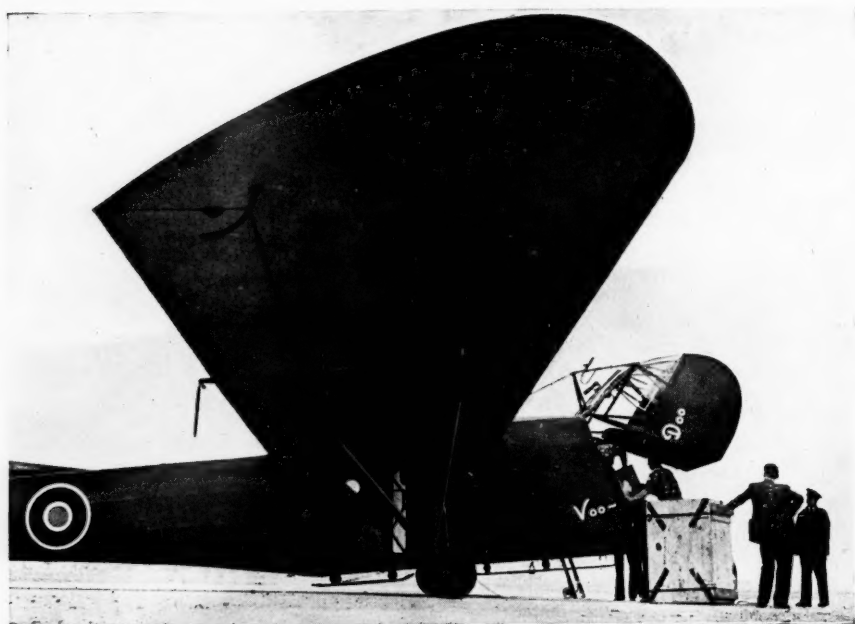


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A FRIGATE OF 1943
H.M.S. "NENE"



THE GLIDER LANDING



NOSE RAISED FOR LOADING CARGO

THE FIRST ATLANTIC-TOWED GLIDER

THE FIRST ATLANTIC AIR TRAIN

THE first "air train" to cross the Atlantic was brought over by R.A.F. Transport Command this summer. The 3,500 miles of its journey were covered in 28 flying hours, and the train consisted of a glider, fully loaded, towed by a twin-engined Dakota. The glider carried vaccines for Russia, and radio, aircraft and motor parts. It was the first time such a trip had been made across the Atlantic, or any ocean. It was the result of many months of experiment, during which several other records were established, including one flight of 1,177 statute miles.

As the train neared the landing ground and broke cloud the towing aircraft was not visible. The glider had the sky to itself, and an interested group of spectators watched it turning evenly and precisely to make a perfect landing in the centre of the runway. A tractor nursed the glider off the runway. The "tug" aircraft then broke cloud, circled, and dropped the tow-rope neatly at the appointed place, where an airman collected it—£80 worth of nylon, which might have made ladies' stockings a few years ago. The tug landed and taxied to its station, and the tractor delivered the glider alongside. Smiling crews gathered at their machines for a moment, comparing the last notes, while the glider opened its jaws to be off-loaded. Within a few minutes the load was trollyed away and the glider safely housed. Outwardly, it was normal routine; just another job done by Transport Command. Behind it, however, is the story of much experiment.

The flight had its origin in a conception of the Air Officer Commanding-in-Chief, Sir Frederick Bowhill who, while commanding the North and South Atlantic Bomber Ferry from Canada, instituted cautious experiments with a view to collecting exact information as to the ultimate possibility of an Atlantic air train service. Sir Frederick had no extravagant ideas about the project, and lays no special emphasis on what the flight accomplished. The test was made as a foundation for further work to be carried out by the technical research branch of his command.

Squadron Leader R. G. Seys, D.F.C., of the R.A.F., was captain of the glider, with Squadron Leader F. M. Gobeil, R.C.A.F., as co-pilot. Both officers belong to the Atlantic group of Transport Command. In the tow-plane were Flight-Lieutenant W. S. Longhurst (captain)—a Canadian with the R.A.F., and Flight-Lieutenant C. W. H. Thomson—a New Zealander also with the R.A.F., both also of Transport Command. The radio officer was Mr. H. G. Wightman, and the flight-engineer Pilot Officer R. H. Wormington. At the base in Canada, the projected flight was encouraged and furthered by Air Commodore Powell and Group Captain Hutch.

The glider is of especial interest. It is an 84-foot wing-span type CG 4A, designed by the Waco aircraft firm and built by a piano manufacturer in New York. The freight load is one and a half tons. For the flight it was equipped with rubber dinghies, ordinary ocean emergency equipment carried by bombers crossing the Atlantic, and flotation gear. The steel attachments were designed to take a pull of 20,000 lbs. Loading and unloading is through a hinged nose, which opens and closes with a jaw-like action.

The successful conclusion of the flight set up a world record in total distance for a glider carrying freight. The non-stop record flight had already been made

by Squadron Leader Seys, who began the actual experiments for the crossing about six months ago. All trials were made with the glider fully loaded, to test the possibilities of a passenger, freight, military or commercial air train service across the Atlantic. Some of the worst weather known in North America for 50 years was met during these experiments. Once the glider force-landed in deep snow, during a blizzard, in mountainous country 60 miles from Montreal. The first major achievement was a triangular-course flight from and back to Montreal by way of Newfoundland and Labrador. The last stage of this flight (820 miles) set up a record for a glider fully loaded with freight, beating the American record of 670 miles. Longer flights followed. On one, southwards from Canada, 1,177 statute miles were covered non-stop at an average speed of 150 m.p.h. This flight provided the data required for the Atlantic venture.

On the journey from Montreal to Britain conditions were mainly favourable, except on the first leg of the run when, in climbing against a head wind, progress was extremely slow. After about three hours the train had reached about 9,000 feet in an attempt to get over the clouds, but the higher the aircraft climbed the higher the clouds seemed to be. At 13,000 feet the clouds still towered above and it was decided to go down and go through. "Broken cumulus," said Squadron Leader Gobeil, "told us we were going to get it, and we did. During the next three hours we were forced down by bad weather through three belts of thunderstorms, ice and snow, until we were only 1,500 feet above the ground."

The glider must be flown all the time. There is no automatic pilot. The pilot may not take his eyes off the tow-plane, or the tow-rope if the tug is in cloud, for a second. If everything is not closely watched all the time, loss of control is the immediate danger; it only takes a few seconds. Particularly in cloud, or at night, care must be constant. In cloud, with the tug invisible, the pilot watches the portion of the tow-rope that is visible, judging his position in relation to the tug by the angle of the rope—called the angle of dangle. The glider should be flown at about 20 feet above the tow-plane.

Apart from the constant strain, the take-off is the most difficult part of the flight. The wing-loading of the glider is less than that of the tug, and it flies in the take-off at a lower speed, so that it is airborne while the tow-plane is still on the ground. Should the pilot allow the glider to get too high before the tug has taken off, the tail of the latter could be pulled up so that no take-off at all would be possible. On the other hand, when in flight it is essential not to let the glider get too low, otherwise the tail of the tug would be pulled down, and the aircraft would stall in too steep a climb. The physical strain of flying is considerable, but concentration becomes almost hypnotic. Even when they are normally resting, each pilot is still tensed, still concentrating. In clear weather, without an horizon, spells run to about one hour; in clear weather, with an horizon, two hours; but in bad weather the captain may continue at the control for hours.

Noise complicates life for the glider pilots. Without power unit though it is, the air pulses like a goods train on worn tracks—a steady beating of wheels over joints. Nor does the noise diminish until the glider speed falls below 70 knots. For communication between glider and tug wireless is used through ordinary ear-phones and throat microphones. When not in use, the glider switches off in order to save batteries. If the pilot of the tug wishes to speak to the glider, he waggles his wings as a signal. Change of temperature has to be allowed for. There is no heating system in the glider. Out of the sun, in cloud or snow, the outside tem-

perature can drop to 30 deg. below zero. On the trans-Atlantic flight, at one time there was snow inside the glider, yet in clear sunshine, regardless of outside temperature, the glider is as hot as a glass-house; the celluloid cockpit concentrates the sun's rays.

For the Atlantic crossing special tanks were fitted for extra fuel, and so made that they could be jettisoned intact with their contents should the need arise. Petrol could not be jettisoned loose, as it would spray back on to the glider and might be set alight by atmospheric electricity.

Drill in the glider itself, in case of being forced down into the sea, was a routine matter between pilot and co-pilot. The first essential was to cut the fuselage open—a knife hung from the top for that purpose. Through the hole, the freight and pilot would go, so that the flotation apparatus might function.

The trans-Atlantic trip was made in stages. Weather was favourable on the whole, although to take immediate advantage of it sleep was sometimes curtailed. On the final stages, for example, the crews were able to get about two hours sleep. The last take-off was early in the morning, and the train circled the airfield precisely on the estimated time of arrival: a long voyage successfully completed, the hazards taken, new facts learned and another job done.

THE CYRENAICA DEFENCE FORCE

By COLONEL W. H. KINGSBERRY, M.B.E.

"**T**HE Libyan Arab Force (Senussi) is re-designated The Cyrenaica Defence Force." (G.H.Q., Middle East, General Orders of 26th March, 1943.) In other words, the Senussi have returned home.

The Foreign Secretary, in the House of Commons, on 8th January, 1942, said: "The Sayed Idriss el Senussi made contact with the British authorities in Egypt within a month of the collapse of France at a time when the military situation in Africa was most unfavourable to us. A Senussi force was subsequently raised from those of his followers who had escaped from Italian oppression at various times during the past twenty years. This force performed considerable ancillary duties during the successful fighting in the Western Desert in the Winter of 1940-1941, and it is again playing a useful part in the campaign now in progress. I take this opportunity to express the warm appreciation of the Government for the contribution which Sayed Idriss el Senussi and his followers have made and are making to the British war effort. We welcome their association with our forces in the task of defeating the common enemies. The Government are determined that at the end of the War the Senussis in Cyrenaica will in no circumstances again fall under Italian domination." (*Times*, 9th January, 1942.) And so opens a new chapter in the history of the Senussi.

The Senussi are a religious Moslem sect, founded by Sayed Mahomed Ibn Ali el Senussi, who was born in Algiers in 1790. His object was to "bring Islam back to its original purity, thereby freeing it from modern heresies and innovations." In Libya in general, and in Cyrenaica in particular, his teaching found a ready acceptance. In 1855 he settled at the oasis of Giarabub (about 150 miles South of Tobruk), given to him by the Sultan of Turkey—Cyrenaica having been administered from Constantinople since 1835. Here he became firmly established. On his death in 1859, he was succeeded by his son, who continued to spread the Senussi doctrine. He moved his headquarters to Kufra, about 500 miles South of Tobruk and a place well known to readers of the travels of Rosita Forbes. He died in 1902 and was succeeded by his nephew, El Sayed Ahmed el Sherif, "who, being the most intelligent of the family, was elected by the brethren." In 1911, Sayed Ahmed assisted the Turks in the Italo-Turkish war, but after the defeat of the Turks he withdrew quietly into the desert. So, in 1912, Italian rule in Libya began.

The war of 1914-18, with the Turks and Germans as allies, gave our enemies the opportunity to use the Senussi against us. In 1915, the Senussi forces, led by Turkish officers, advanced unopposed to the neighbourhood of Mersa Matruh. (In this respect, they may have shown greater initiative than the Italians in 1940, who stopped at Sidi Barrani.) But they were defeated and driven back into Cyrenaica. Sayed Ahmed escaped to Turkey and eventually died in Italy.

The present head of the sect, Sayed Mahomed Idriss, was first cousin to Sayed Ahmed, and succeeded him on the latter's hurried departure from Libya. Sayed Idriss is reputed to have opposed operations against the British in 1915 and he concluded a peace treaty with Italy and ourselves in 1916. He was accorded the title of Emir by the Italians, with his headquarters at Agedabia, and was the

acknowledged Emir or Chief of the oases and hinterland of Cyrenaica—of all, in fact, except the coastal strip between Benghazi and Tobruk which was in the hands of the Italians. He retired to lead a religious life and moved to Egypt in 1924, having dissociated himself from the current hostilities against the Italians.

After the last war the Senussi tribes in Cyrenaica did not agree with Italian methods and opposed them in the most determined fashion. They carried on a guerrilla warfare for years, in spite of official reprisals and a butchery campaign by the Italians. In 1926, the Italo-Egyptian frontier treaty gave Giarabub to the Italians and the Senussi were compelled to abandon it. In 1929, General Graziani was made Governor of Cyrenaica and his military methods soon doomed the Senussi. He conducted a campaign against Kufra with great severity and effectively crushed Senussi resistance. Omar el Mukhtar, the Senussi guerrilla leader, and many of his subordinates, were captured and executed. By 1931, the power of the Senussi had gone and thousands of refugees have since been exiles in the Western Desert of Egypt, between Sollum and Alexandria, and in Siwa.

In 1940, the Sayed Idriss, who was always on the look-out for revenge against the Italians, offered to help the British in the Middle East by raising a force of his followers from the refugees in Egypt. A traditional meeting of Arab sheikhs met the G.O.C., British Troops in Egypt (Lieut.-General—now General—Sir H. Maitland Wilson, G.B.E., K.C.B., D.S.O., A.D.C., G.O.C.-in-C., Middle East), and after the usual round of speeches, the sheikhs agreed to fight for their goal of "regaining their lands and restoring their liberty and independence." So started the British Arab Force, with its headquarters known as 102 Military Mission, akin to an Allied Force. Terms of service—duration of war, and pay similar to the Sudan Defence Force. Later, it became known successively as Libyan Refugee Force, Libyan Arab Force, Libyan Arab Force (Senussi), until its present title, authorized after the third occupation of Cyrenaica. Enlistment began and hundreds of recruits flowed in, rather in the style of Kitchener's first army of 1914. A few experienced officers were collected and the balance made up of civilians and Government officials in Egypt who could speak Arabic. The experienced military officers perhaps knew little or no Arabic, but the Arabic-speaking officers had little or no military knowledge. Between them, they got the Force started in some military order. A depot was opened near Mena (Cairo) and at a ceremony attended by General Wilson, the Union Jack and the Senussi flag were hoisted together and continued to fly together while the depot remained in Egypt. The Senussi flag is black with a white crescent and one star.

Among the recruits were about three hundred Sudanese who were living in Egypt and who wished to take some part in the war. Later, it was found that they and the Libyans did not see eye to eye on all matters and they were collected from various battalions to be formed into two Sudanese companies in one battalion.

It was proposed to raise ten battalions, but this was found to be too ambitious and was reduced to six. Owing to our withdrawals from Cyrenaica it was never possible to initiate a real recruiting campaign in the country. But the original supply of recruits from the refugees in Egypt was considerably augmented by prisoners of war after General Wavell's spectacular advance from Sidi Barrani to Benghazi in 1940-1941. Thousands of Senussi had been conscripted into the Italian Army, and 16,000 of them were duly "put in the bag." Many of these men had no Italian sympathies and voluntarily offered to join their comrades fighting for the British. They were carefully selected, after approval by Senussi

chiefs, and have proved to be trustworthy and reliable. They had military training and many of them have turned out to be useful warrant officers and senior N.C.Os. They were quite keen to fight against the Italians, but they had a fear of capture and, remembering that they would be classified as traitors being Italian subjects, their fear was reasonable.

In 1940, four battalions were formed, with the intention of using three for guerrilla warfare in Libya and the fourth for police duties. These battalions had an establishment of 21 British officers, 29 British other ranks for administrative work, 14 Arab officers selected in conjunction with the Sayed Idriss for their tribal prestige, and over 600 Arab other ranks. As events proved, however, the British advance in 1941 was so rapid that no opportunity presented itself for guerrilla warfare. A detachment was sent to garrison the old Senussi headquarters at Giarabub, after its capture by the Australians. When the Germans entered the Libyan arena in early 1941, three of the battalions formed part of the besieged garrison of Tobruk until June. They did valuable work digging defences and stood up well to intense dive-bombing and shell fire. In Egypt, they took over strategic and supply guard duties, relieving Imperial troops on this work.

For our second advance into Cyrenaica, two battalions went there in December, 1941, to be employed on a gendarmerie role, under the O.E.T.A. (Occupied Enemy Territory Administration), now the Civil Affairs Branch. They were not left long in peace, as the Germans again pushed us back. One battalion in the Barce area managed to get back with the 4th Indian Division, but the other, about 60 miles South of Benghazi, was completely cut off by the enemy. With the loss of six British officers and other ranks and about 120 Arabs, the remainder made their way back in small parties to the British lines, having walked several hundred miles and been cared for by Senussi tribesmen on the way. Without the help of the Senussi in Cyrenaica, very few would have returned. Many of the missing Arabs rejoined later, and the British were confirmed as prisoners of war.

In 1942, a fifth battalion was formed, composed entirely of ex-Senussi prisoners of war. It was the first battalion to be given a thorough preliminary training of six months, under trained British instructors. This battalion never left Egypt and, owing to recruiting shortage for the other four battalions, it was disbanded in December, 1942. (The battalion had the honour of being inspected by H.R.H. The Duke of Gloucester, at the Depot, during his Middle East tour.) At the same time, the Sudanese previously referred to were discharged, solely because they were not Senussi Libyans. They were taken over *en bloc* by our American allies for work at their base near Cairo and "live like lords"—four in a tent, with beds and higher rates of pay!

During the first half of what turned out to be the most historic and critical year of the Middle East campaign, the first four battalions were employed on L. of C. work in the Capuzzo-Sollum-Mersa Matruh area and protection of landing grounds in the Bagush-Fuka-Sidi Haneish area. The battalion in the Capuzzo-Sollum area assisted Indian troops in construction of defences prior to the arrival of Rommel's advanced forces and was ordered to withdraw as the first shells from the enemy artillery fell in the area. A company of the unit destroyed the Capuzzo petrol dump before withdrawal. This unit later took over the guarding of the pumping stations and water pipe-line on the railway, worked by New Zealand sappers, including plant at Tel el Issa and El Alamein, until the German advance made it necessary to withdraw from these stations.

The battalion at Mersa Matruh was evacuated by rail and was bombed and machine-gunned on the way. One of the two battalions protecting landing-grounds became involved with German armour near Gerawla (about 14 miles East of Mersa Matruh) and lost a British officer with a platoon. The remainder of the year 1942 was spent in guards and duties on landing-grounds and other essential tasks in Egypt, including the American base.

When the Eighth Army began its historic and rapid advance from El Alamein to Tunisia, the battalions of the Force became anxious to return to Cyrenaica for the third and last time. Two battalions were sent up early to take up gendarmerie duties under the control of the Deputy Chief Political Officer (now Deputy Chief Civil Affairs Officer). Later, the Headquarters, Depot, and other two battalions followed, and the whole Force is settling down, confident that it will not withdraw again to Egypt. It is too early yet to give up secrecy, but the Force is carrying out its role in Cyrenaica, with both military and gendarmerie duties. Gendarmerie duties need horses and camels, and this adds to the interest for animal-lovers who have been forced to compete with M.T. only. It is not possible, at the present stage, to look too far into the future, but remembering the words of the Foreign Secretary and the needs of the country, perhaps a Force working on the lines of the Arab Legion of Trans-jordan may be the pattern to be developed for the Senussi Arabs. If so, here is another chance for the keen young British officer of the Peake Pasha and Glubb Pasha breed to show his worth in another Arab role in the Libyan Desert.

The Force was never sufficiently well armed or trained to be able to take part in war against Germans, but it had occasional unintentional brushes, which modern mobile warfare brings quickly to the front and back doors.

The battle casualties amount to :—

	<i>British Officers.</i>	<i>British Other Ranks.</i>	<i>Arab Officers.</i>	<i>Arab Other Ranks.</i>
Killed	1	—	1	13
Wounded	—	—	1	6
Missing and Prisoners of War...	6	4	1	108

One of the battalions was in a torpedoed ship—on two separate occasions—near Tobruk, and the officer escort to a captured German General is one of the missing. One Arab officer has received the immediate award of the Military Cross, one man has received a Military Medal and six men have been Mentioned in Despatches.

The men, like all Arabs, are independent and still ask why they have to obey certain orders published by the highest Generals as well as their own officers. But they are keen, and with good British leadership will develop into good soldiers. On one occasion, a company was ordered to march a mile to work on defences, instead of unnecessarily using motor transport, which the men knew was available. They said: "Why does the Colonel treat us like cattle and make us walk?" When it was explained that to use M.T. was wasteful of petrol, rubber, etc., and that to march was good for their feet, they marched on, satisfied but disappointed. Not altogether unlike British troops in that respect! On another day, the whole of the M.T. drivers in one unit objected to an order of the Transport Officer that they were to go on guard and asked to complain to the C.O. The complaint was simply that they were drivers and not sentries. The C.O. explained that drivers were soldiers first and that they would perform guard duties, if necessary. They agreed at once,

if the Colonel said so! This was a relic of their tribal customs where they only take the orders of the head man.

Again, like all Arabs, they are most hospitable. When the full story of the Senussi can be published after the War, it will be found that many British and Allied officers and men of all services owe at least their freedom, and in many cases their lives, to this sect. They deserve not only to be freed from Italian domination, but helped to put their house in order. Cases are known of wounded British soldiers being nursed daily for several months, then returned safely to the British lines and all offers of payment refused. These good Samaritans are the friends and blood relations of the men of the Cyrenaica Defence Force.

TONNAGE

COMPILED BY F. W. MORGAN

THE figures of tonnage quoted for ships are of four kinds: Displacement, Deadweight, Gross Register tonnage, and Net Register tonnage. Displacement tonnage and Deadweight tonnage are measured in units of weight (avoirdupois tons in Great Britain); Gross and Net tonnages in units of space.

DISPLACEMENT AND DEADWEIGHT

Displacement Tonnage

Displacement tonnage is employed invariably for warships, having been in use since 1872. It represents the weight of water displaced by the ship at a given draught, *i.e.*, the actual weight of the fabric and everything aboard. It is reached by computing the volume of sea water displaced in cubic feet, and dividing by 35 to obtain tons. For displacement in fresh water the volume is divided by 36. Displacement represents the greatest tonnage figure which can be quoted against a ship. It is rarely employed for merchant ships. Since the Washington Conference of 1921-22 the actual figure for warships has been given as "Standard Displacement," *i.e.*, total weight except for fuel and reserve feed water.

Deadweight Tonnage

This is the maximum weight of cargo (not cargo of exceptionally high or low density), fuel and stores which can safely be carried by a ship at load draught. It is frequently quoted for cargo ships as an indication of their size for purposes of trade, *e.g.*, in connection with the present American building programme. It can be regarded as the freight-earning capacity of a ship, subject to variations arising from the nature of the cargo and of the voyage.

Lightweight Tonnage is Displacement minus Deadweight (or the weight of the fabric).

GROSS AND NET TONNAGE

The figures entered on the Register of Shipping in the country of ownership are often referred to as Gross and Net Register tonnage. In Great Britain Register tonnage is held in law to be Net register tonnage. Sometimes Net and Gross register tonnage are referred to on the Continent as "new measurement." In Belgium the Net register ton used is the "Moorsom" ton.

Net tonnage is the basis for the assessment of port dues in all countries, and of light dues for ships trading to Great Britain. Net and Gross tonnage also form a basis for negotiating among brokers and underwriters. Furthermore, figures of Net tonnage entered and cleared are usually quoted in statistics of port traffic.

Gross (register) tonnage and Net (register) tonnage are expressed in units of capacity, and not of weight; the "ton" was originally the "tun," a measure of capacity in the wine trade. A Gross or Net ton is a measurement of space calculated from the average bulk of light freight or "measurement cargo."

Measurements and computations in Great Britain are carried out by the Board of Trade Surveyors. The method of measurements and the rules for carrying them out differ somewhat in various countries. The chief rules for the measurement of merchant ships are (1) English rule, (2) old German rule, (3) Danubian rule, (4) Suez Canal rule, (5) Panama Canal rule. In fact, however, the English rule

is generally followed, save for certain differences which occur in some countries. These differences may apply to the general computations of Gross tonnage, as in Sweden, or to the methods of making allowances for Net tonnage, as with the old German rule for the computation of Net tonnage, which is in force in Sweden, Belgium and Chile. Owing to these differences in computation, totals of Net tonnage in Swedish and Belgian statistics, for both ship and port statistics, need to be reduced by an average of 20.6 and 15 per cent. respectively for comparison with the statistics of other countries. The British rules are those laid down by the Merchant Shipping Acts of 1854 and 1894, as amended slightly in 1906.

Sometimes a ship arriving in a country in which the standard differs appreciably from the standard applied in the country of origin is examined by a surveyor and the tonnage computed according to the national standard. British ships arriving in Sweden for the first time are partially re-measured to entitle them to a Swedish certificate; Swedish ships are usually measured in Sweden for British tonnage as well as for Swedish.

Thus the collation of various published figures may lead to the discovery of unavoidable discrepancies. The certificates of tonnage of the following countries, with or without qualifications, have been accepted by the British Government: Belgium,* Denmark,* Estonia, Finland,* France,* Germany,* Greece, Iceland, Italy,* Japan,* Latvia, Netherlands,* Norway,* Portugal,* Spain,* Sweden,* U.S.A., U.S.S.R.*

Gross Tonnage

Working from the "tonnage deck"—the upper deck in all ships which have less than three complete decks, and the second deck from the bottom in all other ships—established formulæ are used to determine the cubic capacity of the ship in feet. Divided by 100 this becomes the Register under-deck tonnage. Upper-deck capacities are added and the result, subject to certain deductions (*e.g.*, of structures for sheltering passengers on the top deck), gives the Gross register tonnage. If the cubic capacity is computed in cubic metres, then division by 2.83 will give the tonnage.

Gross tonnage is sometimes employed as the unit in classifying ships for purposes of legislation, *e.g.*, Merchant Shipping (Wireless Telegraphy) Act, 1919.

Net Tonnage

When deduction from the Gross tonnage is made for all spaces occupied by propelling machinery, navigating equipment, crew's quarters, double bottom and water-ballast tanks, the result is the Net register tonnage, equivalent to the amount of space in the ship which can be devoted to cargo.

A tug, therefore, could have a Net tonnage of 0. Generally speaking, the faster the ship, the higher is the Gross/Net percentage; slow cargo ships have a low Gross/Net percentage.

Suez and Panama Tons

The Suez Canal Company and the United States Government apply special methods of computing the tonnage of ships which pass through the canals. Each

* Ships of other countries trading with Great Britain must, therefore, be measured by the Board of Trade on arrival. The countries shown in the above list with an asterisk, together with Danzig and Great Britain, are those of which the Gross and Net Register tonnage are accepted in the U.S.A. (though not in the Panama Canal).

method, by including more super-structure than is customary, arrives at a higher figure for Gross and Net tonnage than the figures on the register. The Canal computations are higher than the British figures as follows:

Suez: Gross 5 per cent.; Net 30 per cent. (approximately).

Panama: Gross 10 per cent.; Net 30 per cent. (approximately).

These figures are applied irrespective of flag.

RELATIONS BETWEEN TONNAGE FIGURES

There is no general formula to express the relation between Displacement, Deadweight, Gross and Net, for it varies according to the type and build of the ship, the speed it is designed for, and many other factors. For example, a fast steamship and a slow steamship of the same displacement would have different net tonnages owing to the greater space taken up by the propelling machinery space in the former.

It is possible, however, to establish the relationship between all the tonnage figures in ships of closely similar type. In mercantile shipping circles the tonnage normally dealt with is Gross, Net and Deadweight. A rough formula in use is "Deadweight = $2\frac{1}{2}$ times Net." A better and more comprehensive formula, employed for many years, is "100 Net tons = 160 Gross tons = 240 Deadweight tons." In a warship the Gross tonnage approximates to an average of 60 per cent. of the standard displacement.

It is particularly important to distinguish types of measurement employed at the present time in connection with shipping losses and construction programmes. It would be true to say that a million tons of shipping lost is replaced by a million tons of American construction only if the same units are employed throughout. Thus, with standard cargo ships of 3,200 net tonnage and 8,000 tons Deadweight, a million tons of shipping would mean 312 ships if Net tonnage were implied, but only 192 if Gross tonnage were implied and only 125 if Deadweight tonnage were implied.

Measurement Capacity.—A further system of measurements, by volume, gives the true cubic capacity of holds, or what amount of "light measurement" goods can be carried (*i.e.*, of any goods which might ever fill the holds of a normal cargo ship).

e.g., Cubic capacity of holds.

" " " bale space.

" " " grain.

capacity bale space (tons of 40 cubic feet).

EQUIVALENTS

<i>English</i>	<i>French</i>	<i>Italian</i>	<i>German</i>
Gross	Lourd (or brut)	Lordo	Brutto
Net	Tonnage net Jauge nette	Netto	Netto
Deadweight	Enlourd Poids mort	Peso Morto	Totes Gewicht

EMPLOYMENT AFTER RETIREMENT IN THE ARMY

By LIEUT.-COLONEL R. M. HALL, THE SOUTH STAFFORDSHIRE REGIMENT

THE proposals put forward by Brigadier Shakespear in May's JOURNAL should be welcomed, not only by the large number of officers who are personally concerned, but by the War Office in their efforts to solve the problems of maintaining continuity of work in administration and of attracting and keeping the required number of long-service officers.

From the Army point of view the first problem is the greater. We do suffer terribly from brevity of experience on the part of administrative staff officers, and no one is more alive to this than the officers of the administrative Services of the Army. Due to the natural predilection of commanders for the purely fighting side of their responsibilities, the administrative staff not only form the channel of orders for the Services, but very often represent their commanders executively. Commanders, moreover, expect from their administrative staff officers a greater degree of advice and responsibility than they would be prepared to accept or delegate on the "G" side.

Continuity of work is desirable in all work, but more especially in administration. It is as well to make clear that the "A" side is included as well as the "Q," and, perhaps, requires even more experience in the subjects of man-power, morale and discipline. On the "G" side the methods of fighting and staff work change and develop rapidly and, therefore, require a constant renewal of the officers holding "G" appointments; moreover, these officers will constantly move on to other theatres, promotions and commands. On the administrative side changes of personnel are not so rapid and the changes affect the work of the services more than staff technique.

Experience is invaluable to the administrative staff officer, because—

- (a) it enables him to judge when and to what extent he should improvise and make departures from normal practice;
- (b) he can speak to the services with authority and can judge whether they are putting forth their maximum effort or are in need of help;
- (c) he can speak with authority to his commander and to the staff of higher formations;
- (d) he knows the human side of his formation, their names and characteristics.

Before the War, the policy was to give staff officers a round trip in the different branches—"G," "A" and "Q"—but the emphasis was always on the "G" side where the promotion prizes went mostly, with little compensating reward for administrative work. Consequently the time spent in gaining administrative experience was short and the attention of officers was attracted to their "G" work and prospects. During war there is no time for staff officers to learn new trades, so they are perforce canalized into "G" or administration, with great benefit to their experience, but without eliminating that uneasy feeling that they must get away from "A" and "Q" to get better chances of fighting and promotion.

It is here that the great value of the proposal for a long-service administrative staff comes in; it is to build up a body of staff officers who will be administration-conscious and who will devote all their energies to perfecting their knowledge and work therein.

Brigadier Shakespear has suggested forming a category of officers who have been retired comparatively early, at 40 or 45, and then been re-employed in a permanent capacity or put on a retaining list for temporary jobs with refresher courses to keep them up to date. This hardly seems a big enough step.

It is considered that "continuity" appointments should be given primarily to officers on the active list who will thereby be retained for further periods. Staff appointments are now gazetted for periods of three years; to make it worth while an officer should be given a retention for two periods, six years. Subsequently, if still fit, he could become an employed retired officer, as a few are now. From the Army point of view we do not want to depend too much upon retired officers, who have a certain liberty to come and go; while the individual will have a greater pride in his job if he is posted to it still on the active list.

Army administration has been handicapped in peace by the overloading of formation staff officers with static work almost as much as by the lack of commanders and units of the services to operate. Shortly before the War a beginning had been made of separating Territorial Divisions from Areas and the division of field force and static duties is now fairly complete. It is sincerely to be hoped that this relief of the Active Army will continue after the War, however great the call of economy. At least there will be a transition period during which the static staff will operate the home front.

Given this increase of appointments, it should be possible to introduce a system of graded administrative staff officers, employed as most suits their experience and years. The higher posts and formation staffs should continue to be selected as at present, with the difference that they will have entered upon the administrative side earlier and served therein more continuously than in the past. With proper selection, there should be no question of the administrative staff of field formations becoming older as a class. Officers not selected for rapid promotion could continue somewhat longer in the junior active appointments, say to 45 or 48; then gravitate towards the static, where they might serve till 52 or 55; then, if perfectly fit, be re-employed on pension. Vacancies may not meet the number of officers until war occurs, when the shortage will be of officers ready for the jobs. These gaps could be bridged to a large extent by a selected list of officers who, on retirement, undertake to be available on call to attend annual refresher courses and to umpire on army manœuvres, receiving in return a retaining fee and their expenses.

The field army must be based upon a solid foundation of exact preparations, all in instant readiness for modern war, and it is this work that could best be done by a team of administrative staff officers—trained, experienced and, above all, keen and contented. There need be no fear that they will become hide-bound or divorced from "G," because there will be sufficient incentive in the competition amongst themselves and in their enhanced status as recognized experts in their line; whilst the prospect of more extended employment will undoubtedly result in many officers being keen to get on to this administrative staff, either early in their service or when approaching regimental age limits. The difficulty will rather be to select officers for retirement at an early age (35 or 40) as envisaged in Brigadier Shakespear's proposals, but it is all to the good that officers should be loath to go.

Despite many popular conceptions, the Regular Army officer generally has entered upon his military career from a sense of keenness and vocation. That sometimes keenness declines is unfortunate; due partly to human nature, partly to the hampering restrictions of peace-time work and training. More often it is

the case that officers, whose love for their profession is still growing have to turn their attention much too early to the worries of what to do for themselves and their families when retired. It is difficult for anyone who has not served under the shadow of this impending end to realize just how much it does affect an officer's actions, efficiency and readiness to undertake responsibilities and even adventurous service. "Will retirement catch me abroad?" "Shall I be fit for starting civil life after a tour in that Colony?" "Is it worth while keeping my personal equipment and military library up to date?" (Both are expensive and require constant attention.) These and other questions run through his mind.

It is an obligation of the Army and the nation to look after its old soldiers of all ranks. This implies more than mere maintenance; it means giving them the opportunity of continuing to perform work and earn pay up to their useful limits. The usefulness of experience in administrative work has been stressed by Brigadier Shakespear and above; on the "G" and the instructional sides there are also certain appointments which could well be filled by a similar grade of officer with the requisite qualifications. These proposals do not involve expense, provided only that the static organization is not scrapped. The small cost of keeping up a cadre of retired officers for temporary peace jobs and doing refresher courses for war jobs is negligible, certainly in relation to the results.

To sum up, the following principles underlie these proposals:—

- (1) To maintain a separate staff to deal with static administration, quite separate from the work of field formations.
- (2) To direct a proportion of staff officers to specialize early in administration, with a view to continuity therein.
- (3) To select a grade of officers early for the comparatively few higher administrative appointments.
- (4) To fill the static staff from those who have served a time with the field formations, giving them special age conditions.

It is submitted that a system such as is outlined will add greatly to the administrative efficiency of the Army and improve the employment prospects of officers, with consequential benefits to future recruitment.

CORRESPONDENCE

(Correspondence is invited on subjects which have been dealt with in the Journal, or which are of general interest to the Services. Correspondents are requested to put their views as concisely as possible, but publication of letters will be dependent on the space available in each number of the Journal.—EDITOR.)

A UNITED SERVICES COLLEGE

**To the Editor of the R.U.S.I. Journal.*

SIR,—Admiral the Hon. Sir R. A. R. Ernle-Erle-Drax in his letter published in the JOURNAL for February, 1943, states that he has spent years trying to persuade various authorities to arrange the real co-ordination of the three Services. If it is accepted that they are indeed a trinity—"three in one and one in three"—then I suggest that the solution to the problem of co-ordination lies in the early training of their Cadets.

I put forward for consideration that there should be established at either Oxford or Cambridge a "United Services College," which would be organized on the same lines as an ordinary college, under the jurisdiction of the University, but reserved for the education of Cadets for admission into the fighting Services. The Commandant, or President of the College, would be in rotation a distinguished soldier, sailor or airman. Entrance to the college would be by the usual University entrance qualifications, and Cadets would be undergraduates of the University. Students would enter the college from their Public Schools at 18 years of age, and would be commissioned by the age of 21. (The fees should be no higher than they were at Sandhurst or Cranwell before the war.)

Cadets would not be required to state which Service they wished to enter until the end of six months, and during this period they would study the same subjects as one class. They would then make their choice and be posted to one of the three Wings, into which the college would be divided. These Wings would be:—(a) Naval and Marine; (b) Army; (c) Royal Air Force. Each Wing would have instructors from its own Service.

Candidates for the Royal Navy would carry out the ordinary training of naval ratings, both ashore and afloat, during this period; while Army candidates would do their practical training in the ranks at the Training Establishment of the arm of the Service to which they wished to be posted. Candidates for R.A.F. Commissions would likewise do their flying training at their Training Schools.

In his autobiography: "My Naval Life," Admiral of the Fleet the Earl of Cork and Orrery says that the seven years which elapsed between joining the "Britannia" and becoming a commissioned officer were not only to some extent wasteful, but from an educational point of view harmful. He advocates boys continuing their ordinary school education to 17, then doing two years technical training at a Naval College and going to sea at 19 as Sub-Lieutenants. The scheme outlined above meets most of Lord Cork and Orrery's views about the education of Naval Cadets. The main difference is that they would not be commissioned until reaching 21 years of age; but if their four months practical training each year were spent afloat, they would have had a year's experience at sea before receiving their Commissions.

I submit that the introduction of this system of education for Service Cadets would have the following advantages:—

- (1) Cadets for the Fighting Services would spend their most impressionable years in a common atmosphere and surroundings, and receive a more liberal education than under the pre-War system.
- (2) Contacts made in such an environment would be invaluable in later years between the senior officers of all Services who would have known each other in their youth.

- (3) By receiving a foundation education common to all during the first six months, Cadets would be able to choose more intelligently the Service for which they were best suited, and thus eliminate the tragedy of so many men, who find themselves later in life regretting they chose the wrong Service, and with the conviction that they are misfits.
- (4) In such a United Services College, affiliated to either Oxford or Cambridge, the Cadets, while pursuing their separate studies, would firstly be in constant touch with each other in lectures, games, etc., and, secondly, share in the general life of the University, and thus make valuable contacts with others with whom they might have to work later in a different sphere. Working in air-tight compartments, as has so often happened in the past, would be greatly reduced, if not wholly eliminated.

T. A. SHURLOCK,

Captain,

Royal Indian Army Service Corps.

EMPLOYMENT AFTER RETIREMENT

To the Editor of the R.U.S.I. Journal.

SIR,—Brigadier Shakespear raises a point in your May issue which must be the occasion for anxious thought among many officers who are consuming the best years of their life on active service in this Thirty Years War.

Judging by past experience, the cry after this war will be the same as after the last—"Every man for himself." For the prematurely retired officer there will be the usual hunt for a job, and we may anticipate and say that the more distinguished and senior men will be readily absorbed into great commercial concerns at high salaries as they were after the 1918 armistice; while others, less Napoleonic in outlook, will deem themselves lucky in securing a golf club secretaryship.

The trouble seems to be that insularity and parochialism are national vices and the obstinate Celtic strain in our make-up simply inhibits profiting by lessons from the past. That being so, whatever we may say now, we can expect that the Army will continue to be the national Cinderella after this war as it has been after every other.

It would, therefore, be quite impossible to storm the citadel of the Civil Service, for in our country one is sore let and hindered in every direction by vested interests. Yet the Regular Officer who has served efficiently in any branch of the Army, but especially Royal Artillery, Royal Engineers or Royal Army Service Corps, should possess qualities which fit him particularly for a post in the Consular Service. However, one fails to detect in the Foreign Service legislation now before Parliament any inclination to use talents which together with languages so many of these officers undoubtedly possess.

Brigadier Shakespear suggests a "Static personnel" pool from which officers could be supplied to the administrative jobs within the ambit of the War Department only. Until we do away with watertight compartments, closed corporations and vested interests this, indeed, would appear to be the only solution.

Finally, one may be permitted to doubt the wisdom of awarding pensions to superfluous officials whether in the Army or the Foreign Service. Every educated man has some qualities which fit him for some particular job and it should not be beyond the power of efficient administration to see that no square pegs go into round holes. Appointments boards could put men into jobs for which they are suited preferably to standing them down without employment and with an inadequate pension.

C. F. MILSOM,

Major.

To the Editor of the R.U.S.I. Journal.

SIR,—The article by Brigadier A. T. Shakespear, D.S.O., M.C., in your issue for May, 1943, discusses post-war long and short Commissions. As a Commanding Officer with a number of officers holding Territorial and War Emergency Commissions under my command, perhaps I may be allowed to venture a few remarks on the subject of post-war Commissions generally.

There appear to be two main reasons why officers holding Territorial and War Emergency Commissions will not apply for Regular Commissions. These are :—

(a) *Finance.* Most of these officers, and especially the better ones, held jobs in civil life which brought them higher remuneration than they are likely, under present conditions, to get from their Army pay. They all think that they have excellent prospects of going back to similar employment and are, therefore, unlikely to abandon a career which offers them a good salary for one in which their position appears nebulous.

The possessors of private incomes after this war will be even fewer than after the last, and, in short, if the country wants the best material in the Army, the country must be prepared to pay for it in open competition with the trades. This elementary factor is invariably overlooked by the Treasury.

(b) *Prospects.* If (a) is accepted, as it must be, then holders of War Emergency Commissions also feel that the Territorial Army offers them far greater opportunities of rising in military rank than does the Regular Army. In peace time promotion in the former is relatively fast and, in a major war, officers who have taken up the Army as a career are graded for the purposes of seniority on exactly the same basis as those who have possibly carried out only the minimum number of drills in the Territorials. This is intended in no way to belittle the Territorial Officer—far from it—but the system hardly encourages prospective officers to join the Regular Army when they know that by so doing they are placing themselves, from the points of view of finance and seniority, at a distinct disadvantage.

The present system is, therefore, a great incentive to join the Territorials but to avoid, except as a last resort, the Regular Army. This is scarcely a satisfactory state of affairs.

C. R. A. SWYNNERTON,

Lieutenant-Colonel.

GENERAL SERVICE NOTES

H.M. THE KING

The King, travelling by air to North Africa, visited there the British First and Eighth Armies, the Royal Navy and Royal Air Force between 12th and 24th June. His Majesty welcomed the opportunity of seeing also the United States armed forces and those of the French. A visit to Malta was included in the tour, and the King arrived back in England on 25th June. (See also *Navy, Army and Air Notes.*)

BRITISH WAR CASUALTIES.—It was officially stated on 1st June that casualties to all ranks of British Empire Forces during the first three years of war (excluding deaths from natural causes) were :—

	<i>Killed.*</i>	<i>Missing.</i>	<i>Wounded.</i>	<i>Prisoners of war.</i>	<i>Total.</i>
United Kingdom†	73,477	75,403	50,163	76,801	275,844
Canada	3,142	2,058	1,357	3,865	10,422
Australia	6,192	24,193	15,700	7,874	53,959
New Zealand	3,219	2,860	7,178	6,088	19,345
South Africa	1,439	13,350	3,229	4,597	22,615
India‡	3,286	86,289	9,168	3,236	101,979
Colonies	1,334	22,566	1,499	5,430	30,829
Total, British Empire	92,089	226,719	88,294	107,891	514,993

The figures given above are for the three Services only and do not include the Merchant Navy.

Civilian casualties from 3rd September, 1939, to 31st August, 1942, were :—
Killed, 47,291; injured, 55,643; total, 102,934.

NOTICES

HISTORICAL.—The Secretary of the Historical Section of the War Cabinet Secretariat (Great George Street, Westminster, London, S.W.1) would be much obliged if any officer who was present at the Allenstein plebiscite in 1920 would communicate with him.

HAILEYBURY AND IMPERIAL SERVICE COLLEGE.—A number of Exhibitions are available for sons of Officers who have lost their lives in the service of their country, and sons of serving or retired Officers. The value of these Exhibitions is normally £35 per annum. For some of them preference is given to sons of Officers of the 1st Battalion Coldstream Guards, 1st Battalion Somerset Light Infantry, and 1st Battalion Devonshire Regiment. In awarding them, account is taken of a boy's character and preparatory school record as well as of his performance in the Common Entrance Examination or Scholarship Examination. Candidates must generally be in need of financial help. Full particulars can be obtained from the Bursar, Haileybury and Imperial Service College, Hertford.

* Including died of wounds or injuries.

† Including oversea personnel serving in these forces, in particular from Newfoundland and Southern Rhodesia.

‡ Including casualties to the Hong-Kong and Singapore Royal Artillery.

NAVY NOTES

GREAT BRITAIN

H.M. THE KING

On 16th June, in the course of his tour in North Africa (see "Air Notes") the King inspected officers and men from all classes of warships, W.R.N.S. officers and ratings and seamen of the Merchant Navy. He was received by Admiral of the Fleet Sir Andrew Cunningham, who presented Vice-Admiral H. K. Hewitt, U.S. Navy, and other officers. Before leaving, the King visited a British battleship and an American warship.

On 20th June, the King visited Malta, making the passage from and to Tripoli in H.M.S. "Aurora," escorted by the destroyers "Lookout," "Jervis," "Nubian" and "Eskimo." He visited the dockyard, where he was received by Rear-Admiral A. J. Power.

On 4th June, the King, accompanied by Princess Elizabeth, visited the Nautical College, Pangbourne, on the occasion of Founder's Day.

BOARD OF ADMIRALTY

The King has been pleased, by Letters Patent under the Great Seal, bearing the date of 7th June, 1943, to appoint the following to be Commissioners for executing the Office of Lord High Admiral of the United Kingdom :—

Right Hon. Albert V. Alexander, C.H.

Admiral of the Fleet Sir A. Dudley P. R. Pound, G.C.B., G.C.V.O.

Admiral Sir Charles E. Kennedy-Purvis, K.C.B.

Vice-Admiral Sir William J. Whitworth, K.C.B., D.S.O.

Vice-Admiral Sir William F. Wake-Walker, K.C.B., C.B.E.

Rear-Admiral Frank H. Pegram, C.B., D.S.O.

Rear-Admiral Denis W. Boyd, C.B.E., D.S.C.

Vice-Admiral Sir Edward N. Syfret, K.C.B.

Rear-Admiral John H. Edelsten, C.B.E.

Rear-Admiral Wilfred R. Patterson, C.B., C.V.O.

George Henry Hall, Esq.

Victor A. G. A. Baron Bruntisfield, M.C.

Captain Richard A. Pilkington, M.C.

Sir James Lithgow, Bart., M.C., T.D.

Sir Henry Vaughan Markham, K.C.B., M.C.

APPOINTMENTS

LEVANT.—On 29th April, it was announced that, acting on medical advice, Vice-Admiral (Acting Admiral) Sir Henry H. Harwood, K.C.B., O.B.E., had relinquished his appointment as Commander-in-Chief, Levant, and returned to the United Kingdom. Admiral Harwood was succeeded temporarily by Vice-Admiral (Acting Admiral) Sir Ralph Leatham, K.C.B., late Vice-Admiral, Malta.

On 11th June, it was announced that the King had approved the appointment of Vice-Admiral Sir John H. D. Cunningham, K.C.B., M.V.O., to be Commander-in-Chief, Levant, with the acting rank of Admiral, in succession to Admiral Sir Ralph Leatham. On 13th June, Admiral Cunningham arrived at Ankara on a visit to the British Ambassador. Next day he was received by General İnönü, the Turkish President, and also

saw M. Sarajoglu, the Prime Minister, Marshal Chakmak, the Turkish Chief of Staff, and General Artunkal, Minister for War. He left Ankara on 15th June.

FOURTH SEA LORD.—On 3rd May, it was announced that the King had approved the appointment of Rear-Admiral F. H. Pegram, C.B.E., D.S.O., to be a Lord Commissioner of the Admiralty and Chief of Supplies and Transport in succession to Vice-Admiral Sir John Cunningham.

SHORE APPOINTMENTS.—On 3rd May, it was also announced that Rear-Admiral (Acting Vice-Admiral) H. B. Rawlings, C.B., O.B.E., had succeeded Rear-Admiral Pegram in the shore appointments abroad recently held by him.

The following were announced on 20th July :—

PLYMOUTH.—The King has approved the appointment of Vice-Admiral Sir Ralph Leatham, K.C.B., to be Commander-in-Chief, Plymouth, in succession to Admiral of the Fleet Sir Charles M. Forbes, G.C.B., D.S.O.

In addition, the following temporary appointments have recently been made :—Rear-Admiral A. J. Power, C.B., C.V.O., to be Flag Officer-in-Charge, Malta, in succession to Vice-Admiral Sir Stuart S. Bonham-Carter, who relinquished this appointment owing to ill-health.

Rear-Admiral C. H. J. Harcourt, C.B.E., in command of a cruiser squadron, to be Rear-Admiral Commanding a Cruiser Squadron, in succession to Rear-Admiral Power.

Captain W. G. Agnew, C.B., D.S.O., R.N., to be Commodore-in-Command of a Cruiser Squadron, in succession to Rear-Admiral Harcourt.

PROMOTIONS

On 21st June, the Admiralty announced that Rear-Admiral (acting Vice-Admiral) Sir Edward Neville Syfret, K.C.B., was promoted to Vice-Admiral in H.M. Fleet, to date 21st June. Vice-Admiral Syfret's appointment to the Admiralty as Vice-Chief of Naval Staff was announced on 23rd March.

The following promotions to Rear-Admiral in H.M. Fleet have been approved, to date 8th July, 1943 :—

Captain James W. Rivett-Carnac, D.S.C., A.D.C.

Captain John W. A. Waller, A.D.C.

Captain (Acting Rear-Admiral) Reginald H. Portal, D.S.C., A.D.C.

Captain (Acting Rear-Admiral) Ernest R. Archer, C.B.E., A.D.C.

Captain (Commodore, First Class) John A. V. Morse, C.B., D.S.O., A.D.C.

Captain Harold R. G. Kinahan, C.B.E., A.D.C.

Captain Arthur G. Talbot, D.S.O., A.D.C.

Captain (Commodore, Second Class) Randolph S. G. Nicholson, D.S.O., D.S.C.

Captain George E. Creasy, C.B.E., D.S.O., M.V.O.

HONOURS AND AWARDS

Victoria Cross

On 19th May, it was announced that the King had approved the award of the Victoria Cross to the late *Acting Captain F. T. Peters*, D.S.O., D.S.C., R.N., for valour in taking H.M.S. "Walney," in an enterprise of desperate hazard, into the harbour of Oran on 8th November, 1942. Captain Peters led his force through the boom towards the jetty in the face of point-blank fire from shore batteries, a destroyer, and a cruiser. Blinded in one eye, he alone of the 17 officers and men on the bridge survived. The "Walney" reached the jetty disabled and ablaze, and went down with her colours flying. Captain Peters subsequently lost his life in an air accident.

On 26th May, it was announced that the King had approved the award of the Victoria Cross for valour in command of H.M. submarines to *Commander J. W. Linton*, D.S.O., D.S.C., R.N. From the outbreak of war until H.M.S. "Turbulent's" last patrol, Commander Linton was constantly in command of submarines, and during that time inflicted great damage on the enemy. He sank one cruiser, one destroyer, one U-boat, 28 supply ships, some 100,000 tons in all, and destroyed three trains by gunfire. In his last year he spent 254 days at sea, submerged for nearly half the time, and his ship was hunted 13 times and had 250 depth charges aimed at her. His many and brilliant successes were due to his constant activity and skill, and the daring which never failed him when there was an enemy to be attacked. It was pointed out that the award of the V.C. to Commander Linton was not a posthumous one. H.M.S. "Turbulent" was announced as overdue and presumed lost on 3rd May, and the officers and crew were therefore "missing," but had not yet been posted officially as "missing, presumed dead."

BIRTHDAY HONOURS

The following were included in the honours conferred on the occasion of the official celebration of the King's Birthday on 2nd June :—

K.C.B. (MILITARY).—Admiral Sir Bruce Austin Fraser, Vice-Admiral A. L. St. George Lyster, Vice-Admiral A. U. Willis, Engineer Vice-Admiral F. R. G. Turner.

C.B. (MILITARY).—Rear-Admiral A. M. Peters, Rear-Admiral I. G. Glennie, Rear-Admiral A. F. E. Palliser, Rear-Admiral D. W. Boyd, the Ven. Thomas Crick, Chaplain of the Fleet, Engineer Rear-Admiral John Kingcombe, Surgeon Rear-Admiral W. H. Edgar, Brigadier L. C. Hollis, R.M.

K.B.E. (MILITARY).—Vice-Admiral G. O. Stephenson (Retired), Vice-Admiral A. E. Evans (Retired), Rear-Admiral E. O. Cochrane (Retired), Rear-Admiral W. G. C. Maxwell (Retired), Rear-Admiral Errol Manners (Retired).

DISTINGUISHED SERVICE ORDER

On 7th July, Commander E. A. Gibbs, D.S.O., R.N., was awarded a Third Bar to the D.S.O. for courage and skill in successful actions against enemy submarines.

The following were awarded Second Bars to the D.S.O. on the dates shown :—Lieutenant-Commander E. A. Woodward, D.S.O., R.N. (5th May), for bravery and devotion to duty in successful patrols in H.M. submarines. Lieutenant-Commander C. B. Crouch, D.S.O., R.N. (30th June), for courage and skill in hazardous operations in H.M. submarine "Thunderbolt." Lieutenant-Commander E. N. Pumphrey, D.S.O., D.S.C., R.N. (7th July), for outstanding leadership, skill and determination in intercepting an enemy convoy. Commander B. Bryant, D.S.O., D.S.C., R.N. (7th July), for great daring, enterprise, and skill in successful patrols in one of H.M. submarines.

ROYAL VICTORIAN ORDER

Appointments made by the King on the occasion of his visit to North Africa and Malta included the award of the C.V.O. to Captain (Commodore Second Class) William G. Agnew, C.B., D.S.O., R.N.

PERSONNEL

EMPLOYMENT OF RESERVE OFFICERS.—In a statement in the House of Commons on 7th July, the First Lord, Mr. Alexander, said that no officer was barred from any appointment for which he was fitted merely because he was a reserve or temporary officer. It was the policy of the Admiralty to give important appointments to such officers in increasing numbers, and there were now officers of the R.N.V.R. and R.N.R. in command of destroyers, of submarines, and of groups of corvettes, and others were executive officers of large vessels such as cruisers, with the rank of commander. The belief that reserve and temporary officers were not receiving promotion in accordance with their employment, though possibly widely held, was ill-founded. A Fleet Order was issued last September which was designed to encourage the promotion of such officers to the

rank of Acting Lieutenant-Commander, and over 1,000 officers had already been so promoted under that order alone. Instructions had been issued to make it clear that recommendations for such promotion should not be limited to officers who were capable of performing all the duties of Lieutenant-Commander's rank; normally it would be sufficient if an officer was able to perform the duties of that rank in the branch in which he had specialised. We are now (continued Mr. Alexander) in a position to make promotions also to the rank of Commander from among temporary officers as well as from the officers of the permanent reserves. These promotions to Lieutenant-Commander and Commander are semi-permanent promotions which do not depend on the officer remaining in a particular appointment. In addition, there are continual cases of appointments which can be most suitably filled by reserve and temporary officers, and which carry the grant of one or more steps in acting rank. There will be no hesitation on the part of the Admiralty to grant the necessary acting rank in such cases, and there is now no rule or practice which prevents the grant of double acting rank where it would be appropriate to an appointment of this kind. Reserve officers with sea experience are already employed at the Admiralty, and, inevitably, the number so employed will increase. In accordance with a recent decision a Commodore, R.N.R., and a Commodore, R.N.V.R. have been appointed as Naval Assistants to the Admiral Commanding Reserves. As regards staff courses, officers of the Special Branch of the R.N.V.R., intended to replace R.N. executive officers, have received ever since 1940 a course of instruction in their duties. This course now extends to six weeks. The Financial Secretary explained on 17th March that staff courses proper would be reopened for both R.N. and Reserve officers. This has now been done, and it is the intention that a large proportion of reserve officers shall be appointed to these courses. The First Lord concluded with an expression of the Board's appreciation for the services of officers of the naval reserves in every sphere of the war at sea.

RESERVE OFFICERS' COMMANDS.—The first officer of the R.N.V.R. to obtain command of a destroyer was Lieutenant-Commander E. N. Wood, D.S.C., R.N.V.R., who was appointed to command the destroyer "Atherstone" in April, 1942. In civil life he was a solicitor's articled clerk, and joined the Mersey Division in 1931. The next officer to obtain a destroyer command was Lieutenant-Commander D. A. Rayner who, after serving in two corvettes, was appointed to command the "Shikari" in March, 1943. He also joined the Mersey Division in 1925. Both officers are now 35 years of age.

The first R.N.V.R. officer to obtain command of a submarine was Lieutenant-Commander Frederick H. Sherwood, D.S.C., of the Royal Canadian Naval Volunteer Reserve. He was formerly first lieutenant with Commander Benjamin Bryant, D.S.O., D.S.C., R.N. He joined the R.C.N.V.R. as a Midshipman in June, 1933. The first English R.N.V.R. officer to obtain command of a submarine was Lieutenant Edward Young, D.S.C., a London publisher and yachtsman. He formerly served under Lieutenant Michael Lumby, D.S.O., D.S.C., R.N., and joined the R.N.V.R. in 1940.

WOMEN'S ROYAL NAVAL SERVICE

The Duchess of Kent, Commandant, inspected units and establishments of the W.R.N.S. in the Western Approaches Command during the three days ending 13th May. On 27th May, the Duchess inspected units and establishments in Hampshire and Surrey, and, on 29th June, visited the Headquarters of the Service at Queen Anne's Mansions, London, S.W.

ROYAL MARINES

PROMOTIONS.—Lieutenant-Colonel (Brevet Colonel) (Acting Colonel Commandant, temporary Brigadier) H. W. Simpson, D.S.O., to be Colonel Second Commandant (Acting Colonel Commandant, temporary Brigadier), 5th May, 1943. Lieutenant-Colonel (acting Major-General) W. B. F. Lukis, C.B.E., to be Colonel Second Commandant (acting Major-General), 5th May, 1943.

DOMINIONS AND COLONIES

AUSTRALIA

U.S. CRUISER "CANBERRA."—The heavy cruiser "Canberra" for the United States Navy, the first American vessel to be named in honour of a foreign city, was launched on 19th April, and named by Lady Dixon, wife of Sir Owen Dixon, Australian Minister to the United States. The new "Canberra" will be more powerful than her namesake, the Australian cruiser, lost during the battle for the Solomons in August, 1942.

CANADA

NEW COMMAND.—On 30th April, new measures for the organization of naval and air defensive and offensive activities in the Western Atlantic were announced by Mr. Angus Macdonald, Minister for Naval Services, and Mr. C. G. Power, Minister for Air. They included the appointment of Rear-Admiral L. W. Murray to the new post of Commander-in-Chief, Canadian North-West Atlantic, who thus became the first Canadian Commander-in-Chief in this war to assume operational direction of a vital war area in which the enemy is being actively engaged.

The following summary of the new measures was given by the Ottawa correspondent of *The Times* in its issue of 1st May:—"The decision to appoint a Commander-in-Chief in the Canadian North-West Atlantic arose from discussions between Britain, the United States, and Canada, and reflects the importance that attaches to the need for keeping the Atlantic life-line intact. The assumption of the new command and the provision of ships, aeroplanes, and men to carry out its operations have been made possible by the amazing growth in the fighting strength of the Royal Canadian Navy and the Royal Canadian Air Force. Canadian ships have been providing nearly half of the convoy protection in the North Atlantic in addition to other operations; and in the past 18 months the Royal Canadian Air Force has made about 50 attacks on enemy submarines. All anti-submarine air activities in the North-West Atlantic will be under the operational control of Air Vice-Marshal George Johnson, Air Officer Commanding-in-Chief, Eastern Air Command. New long-range Canadian bombers and American machines will patrol to 'somewhere in mid-Atlantic,' whence British bombers will take over. Thus a trans-atlantic umbrella will be established and air protection afforded to merchantmen and other ships on every mile of the route from North America to Europe, with Britain and Canada sharing responsibility across the North Atlantic in surface and sky protection for trade convoys. The new arrangement will result in more efficient control of the ships and aircraft engaged in anti-submarine warfare."

TRANSFER OF DESTROYERS.—It was announced on 9th June that four destroyers of the Royal Navy had been presented to the Royal Canadian Navy: the "Decoy" (renamed "Kootenay"), the "Express" (renamed "Gatineau"), the "Fortune" (renamed "Saskatchewan"), and the "Griffin" (renamed "Ottawa").

INDIA

MILEAGE IN 1942.—Ships of the Royal Indian Navy steamed 237,220 miles on anti-submarine patrols during 1942, and a further 383,150 miles in escorting merchant vessels. The highest mileage was achieved by the "Sonavati," which steamed 48,430 miles in convoy work in the Dutch East Indies, the Bay of Bengal, and the Arabian Sea, or an average of over 130 miles a day, a remarkable performance when periods in harbour are taken into account. The "Sutlej" had a total of 45,760 miles, and the "Jumna" of 43,300 miles.

FALKLAND ISLANDS

Although the population numbers only about 3,000, the Falkland Islands are paying the full cost of maintaining their coastal defences and also of the colony's defence force on a war footing. The islanders have given over £13,000 to war charities, and the Government £50,000 for the purchase of ten Spitfires.

ALLIED NAVIES

Details were made known on 5th May of the growth of the navies of those Allies which, as their own countries are in enemy occupation, are administered by headquarters in London. Vice-Admiral Edward L. S. King, Principal Naval Liaison Officer, stated that in the last year and a half their forces had grown from 170 warships, manned by 15,000 officers and men, to 220 ships, manned by 27,000, and ranging in type from cruiser to minesweeper. There are, in addition, some 650 harbour craft. Each large allied warship carries a British liaison officer with a few signal ratings, and they are included in British squadrons or flotillas on completely equal terms. Seven navies are thus operating:—Fighting French, Hellenic, Norwegian, Netherlands, Polish, Yugoslav, and Belgian (the last-named as a section of the British Navy). An eighth, the Danish, is being formed. An indication of their excellent service is given by the award of 159 British decorations to officers and men.

ARMY NOTES

H.M. THE KING

The King and Queen visited the Guards Armoured Division early in May.

On 14th May the King and Queen witnessed Guard Mounting at Buckingham Palace by the 1st County of London Battalion (Westminster), Home Guard—this date being the third anniversary of the formation of the Home Guard. On 16th May the King took the Salute at a parade of the Home Guard in Hyde Park.

The King, who was accompanied by the Queen, took the Salute at the passing-out of Royal Armoured Corps cadets at Sandhurst on 21st May.

During the King's visit to North Africa in June (see General Service Notes) the principal *military* episodes were:—His Majesty's visit to a large Army convalescent camp on the Mediterranean coast on 13th June; his review of troops of the United States Fifth Army on the 14th; his inspection of troops of the British First Army on 17th June—this included a visit to the headquarters of the 78th Division; the King's visit to troops of the Eighth Army on 19th June, when he conferred the Victoria Cross in person on Subadar Lalbahadur Thapa, 2nd Gurkha Rifles; the visit to Malta on 20th June; the King's inspection at Tripoli next day of British, South African, Fighting French, Indian, Sudanese, Palestinian and Mauritian troops; his review of the French North African Army at Algiers on 23rd June; and, finally, his inspection of the 51st (Highland) Division on 24th June.

The King, accompanied by the Queen, presented Colours to the Royal Regiment of Canada and the South Saskatchewan Regiment on 16th July.

The Queen, Colonel-in-Chief of the King's Own Yorkshire Light Infantry, visited a battalion of that Regiment early in May. On 7th May she inspected the Toronto Scottish Regiment and the Black Watch (Royal Highland Regiment) of Canada, of which Her Majesty is Colonel-in-Chief.

On 6th July, the Queen (Commandant-in-Chief), accompanied by the Princess Royal (Controller Commandant), inspected units of the Auxiliary Territorial Service in the London District and Anti-Aircraft Command.

The Duke of Gloucester visited Canadian troops in the South-Eastern Command during the third week in May.

The Duchess of Gloucester, Colonel-in-Chief of those Regiments, visited units of The Northamptonshire Regiment on 19th and 20th May and on 7th and 27th July, and units of the King's Own Scottish Borderers on 25th June.

The Duchess of Kent (Honorary Colonel) inspected a Buckinghamshire Battalion of The Oxfordshire and Buckinghamshire Light Infantry on 15th May.

The King has been pleased to approve the following appointments:—

TO BE AIDES-DE-CAMP TO THE KING.—Colonel (acting Major-General) W. H. Oxley, C.B.E., M.C. (15th March, 1943); Colonel (acting Brigadier) T. H. Darwell, O.B.E., M.C. (23rd May, 1943); Colonel H. V. Combe, D.S.O., M.C., Territorial Army (4th April, 1943); Colonel J. E. T. Barbary, C.B.E., T.D., Territorial Army (7th June, 1943).

TO BE HON. SURGEON TO THE KING.—Colonel B. C. Ashton, M.B., Ch.B. (Edin.), V.H.S., Indian Medical Service (6th March, 1943).

TO BE COLONELS COMMANDANT.—Of the Army Dental Corps, Major-General D. Clewer, C.B., retired pay (16th April, 1943); of the Reconnaissance Corps and of the Intelligence Corps, General Sir Bernard Paget, K.C.B., D.S.O., M.C. (26th May, 1943); of the Royal Army Pay Corps, Major-General H. G. Riley, C.B. (27th August, 1943).

TO BE COLONELS OF REGIMENTS.—Of the 1st Battn. (D.C.O.), 10th Baluch Regiment, Indian Army, Colonel (acting Major-General) H. R. Briggs, D.S.O. (7th May, 1943); of the Leicestershire Regiment, General Sir Clive Liddell, K.C.B., C.M.G., C.B.E., D.S.O., retired pay (22nd March, 1943); of the Q.V.O. Madras Sappers and Miners Group,

Colonel (honorary Brigadier) R. C. R. Hill, D.S.O. (14th April, 1943); of The Buffs, Major-General the Hon. P. G. Scarlett, C.B., M.C., retired pay (4th June, 1943).

HONOURS AND AWARDS

Victoria Cross.—The King has been pleased to approve the award of the Victoria Cross to—

(a) Major (temporary Lieut.-Colonel) D. A. Seagrim, The Green Howards—in recognition of superb leadership, outstanding valour and devotion to duty in the attack on the Mareth Line on the night of 20th March, 1943 (posthumous).

(b) Havildar Parkash Singh, 8th Punjab Regiment, Indian Army—in recognition of inspiring gallantry at Donbaik, Mayu Peninsula, Burma, on 6th January, 1943.

(c) Second Lieutenant Moana-Nui-a-Kiwa Ngarimu, New Zealand Military Forces—in recognition of outstanding courage and fortitude and leadership of the highest order on 26th March, 1943, in action in North Africa (posthumous).

(d) Major (temporary Lieut.-Colonel) L. M. Campbell, D.S.O., T.D., The Argyll and Sutherland Highlanders—in recognition of superb gallantry and magnificent leadership which can seldom have been surpassed, in the attack on the Wadi Akarit position (Tunisia) on 6th April, 1943.

(e) Subadar Lalbahadur Thapa, 2nd King Edward VII's Own Gurkha Rifles, Indian Army—in recognition of unsurpassed bravery, outstanding leadership and ruthless determination in a night attack on 5/6th April, 1943, which was a prelude to the assault on the Wadi Akarit position (Tunisia).

(f) Lieutenant W. A. S. Clarke, The Loyal Regiment (North Lancashire)—in recognition of most conspicuous gallantry, brilliant leadership and tenacious devotion to duty in action at Guiriat el Atach (Tunisia) on 23rd April, 1943 (posthumous).

(g) Lieutenant (acting Major) J. T. McK. Anderson, D.S.O., The Argyll and Sutherland Highlanders—in recognition of conspicuous gallantry, inspiring leadership and outstanding devotion to duty during the attack on Longstop Hill (Tunisia) on 23rd April, 1943.

(h) Company Havildar-Major Chhelu Ram, 6th Rajputana Rifles, Indian Army—in recognition of most conspicuous bravery, determination, magnificent leadership and devotion to duty on the night 19/20th April, 1943, near Enfidaville, Tunisia (posthumous).

(i) Private E. Anderson, The East Yorkshire Regiment—in recognition of his outstanding valour and complete disregard for personal safety when acting as a stretcher bearer in action at the Wadi Akarit (Tunisia) on 6th April, 1943 (posthumous).

It was announced on 1st July that the King had been pleased to approve that the dignity of a Viscounty of the United Kingdom be conferred upon Field-Marshal Sir Archibald Wavell, G.C.B., C.M.G., M.C., Viceroy-designate of India.

It was announced on 26th May that the King had been pleased to give orders for the following appointments in recognition of most valuable services in command of troops of the Allied Nations :—

G.C.B. (Honorary).—General Douglas MacArthur, Commander-in-Chief, Allied Forces, South-West Pacific; General Dwight D. Eisenhower, Commander-in-Chief, Allied Forces, North Africa.

The following were included in a list, announced on 28th May, of honours and awards to members of the Australian Military Forces in recognition of gallant and distinguished services in the South-West Pacific :—

G.B.E.—General Sir Thomas Blamey, K.C.B., C.M.G., D.S.O., Commander-in-Chief of the Australian Military Forces and Commander of the Allied Land Forces in the S.W. Pacific Area.

K.B.E.—Lieut.-General E. F. Herring, C.B.E., D.S.O., M.C., E.D.

C.B.—Major-General G. A. Vasey, *C.B.E.*, *D.S.O.*

The following were included in the King's Birthday Honours List published on 2nd June :—

K.C.B.—Lieut.-General A. Hood, *C.B.*, *C.B.E.*, *M.D.*, *K.H.P.* ; Lieut.-General H. C. Loyd, *C.B.*, *D.S.O.*, *M.C.* ; Lieut.-General (acting) R. M. Weeks, *C.B.E.*, *D.S.O.*, *M.C.*, *T.D.*

K.B.E.—Lieut.-General G. Le Q. Martel, *C.B.*, *D.S.O.*, *M.C.* ; Major-General P. C. S. Hobart, *C.B.*, *D.S.O.*, *O.B.E.*, *M.C.*

C.B.—Major-Generals F. V. B. Witts, *C.B.E.*, *D.S.O.*, *M.C.* ; A. R. Valon, *O.B.E.*, *M.C.*, *M.I.Mech. E.* ; R. L. Bond, *C.B.E.*, *D.S.O.*, *M.C.* ; O. W. McSheehy, *D.S.O.*, *O.B.E.*, *M.B.*, *K.H.S.* ; G. R. Smallwood, *D.S.O.*, *M.C.* ; S. W. Kirby, *C.I.E.*, *O.B.E.*, *M.C.* ; Lieut.-General (temporary) F. E. Morgan ; Lieut.-General (acting) M. G. N. Stopford, *D.S.O.*, *M.C.* ; Major-General M. B. Burrows, *D.S.O.*, *M.C.* ; Major-Generals (temporary) P. J. Shears, N. G. Holmes, *C.B.E.*, *M.C.*, A. A. B. Dowler and H. T. MacMullen, *C.B.E.*, *M.C.* ; Lieut.-General (acting) G. C. Bucknall, *M.C.* ; Major-Generals H. H. Rich, Indian Army, and A. A. C. McNeill, *M.B.*, *K.H.S.*, Indian Army ; Major-Generals (temporary) A. W. C. Richardson, *D.S.O.* C. W. Toovey, *C.B.E.*, *M.C.*, Indian Army, and G. W. Hodgen, *O.B.E.*, Indian Army ; Colonels W. P. Cutlack, *T.D.*, *D.L.*, and P. J. G. Gueterbock, *D.S.O.*, *M.C.*, *T.D.*

The following awards to officers of the Canadian Army were included in the King's Birthday Honours List :—

C.B.—Lieut.-General E. W. Sansom, *D.S.O.* ; Major-Generals W. H. P. Elkins, *C.B.E.*, *D.S.O.*, G. R. Pearkes, *V.C.*, *D.S.O.*, *M.C.*, F. F. Worthington, *M.C.*, *M.M.*, and C. S. L. Hertzberg, *M.C.*, *V.D.*

The following award was announced on 8th July in recognition of gallant and distinguished services in East Africa and Madagascar :—

C.B.—Major-General (acting) F. J. R., Baron Rennell, Royal Artillery.

PROMOTIONS

The following promotions have been announced :—

Lieut.-Generals.—The following Major-Generals (temporary Lieut.-Generals) to be Lieut.-Generals :—K. A. N. Anderson, *C.B.*, *M.C.* (22nd January, 1943) ; F. N. Mason Macfarlane, *C.B.*, *D.S.O.*, *M.C.* (5th May, 1943).

The following Major-General (acting Lieut.-General) to be temporary Lieut.-General :—F. E. Morgan (14th May, 1943).

The following Major-Generals to be acting Lieut.-Generals :—R. M. Scobie, *C.B.*, *C.B.E.*, *M.C.* (22nd March, 1943) ; H. E. de R. Wetherall, *C.B.*, *D.S.O.*, *M.C.* (23rd April, 1943).

Colonel (acting Lieut.-General) R. M. Weeks, *K.C.B.*, *C.B.E.*, *D.S.O.*, *M.C.*, *T.D.*, to be temporary Lieut.-General and War Subs. Major-General (15th June, 1943).

Major-Generals.—The following Colonels (temporary Major-Generals) to be Major-Generals :—F. W. Messervy, *C.B.*, *D.S.O.*, Indian Army (17th April, 1943) ; L. Browning, *O.B.E.*, *M.C.* (with seniority 7th October, 1941) ; H. P. M. Berney-Ficklin, *C.B.*, *M.C.*, W. R. C. Penney, *C.B.E.*, *D.S.O.*, *M.C.*, E. H. Barker, *C.B.E.*, *D.S.O.*, *M.C.* (all with seniority 17th November, 1941) ; F. I. S. Toker, *O.B.E.*, Indian Army (31st May, 1943).

To be Major-Generals :—Colonel (temporary Lieut.-General) R. G. W. H. Stone, *C.B.*, *D.S.O.*, *M.C.* (with seniority 3rd November, 1940) ; Colonel (acting Major-General) J. G. Cheetham, *D.S.O.*, *M.C.* (12th June, 1943) ; Colonel (local Major-General) W. C. Hartgill, *O.B.E.*, *M.C.*, late *R.A.M.C.* (1st June, 1943).

The following Colonels (acting Major-Generals) to be temporary Major-Generals :—J. C. Haydon, *D.S.O.*, *O.B.E.* (28th March, 1943) ; T. J. W. Winterton, *C.B.E.* (1st April,

1943); W. P. A. Bradshaw, D.S.O. (8th April, 1943); Acting Lieut.-General G. W. R. Templer, D.S.O., O.B.E. (10th April, 1943); H. R. Kerr, O.B.E., M.C., J. D. Inglis, O.B.E., M.C. (both 13th April, 1943); E. D. Fanshawe, C.B.E. (1st May, 1943); E. B. Rowcroft, C.B.E., M.I.Mech.E. (10th May, 1943); C. H. Geake (31st May, 1943); V. Eveleigh, O.B.E. (13th June, 1943); J. N. Slater, C.B.E., M.C. (19th June, 1943); B. Cuff, C.B.E. (1st July, 1943).

The following War Subs. Lieut.-Colonels (acting Major-Generals) to be temporary Major-Generals and War Subs. Colonels:—D. C. Butterworth, D.S.O., North Staffordshire Regiment (23rd April, 1943); D. C. Bullen-Smith, M.C., King's Own Scottish Borderers (31st May, 1943); H. B. Hibbert, D.S.O. (30th May, 1943).

The following Colonels (temporary Brigadiers) to be acting Major-Generals:—C. B. Wainwright (14th April, 1943); P. G. Whiteford, O.B.E., M.C. (15th April, 1943); E. T. L. Gurdon, M.C. (1st April, 1943); C. H. H. Vulliamy, D.S.O. (5th May, 1943); J. A. A. Griffin, D.S.O. (4th May, 1943); J. T. W. Reeve, C.B.E., D.S.O. (15th May, 1943); D. A. H. Graham, D.S.O., O.B.E., M.C. (5th May, 1943); P. S. Whitcombe, O.B.E. (15th May, 1943); G. Cheetham, D.S.O., M.C. (31st May, 1943); W. A. F. L. Fox-Pitt, D.S.O., M.V.O., M.C., and T. W. Richardson, O.B.E. (15th May, 1943); D. R. Duguid, M.B.E., A.M.I.E.E. (5th February, 1943); E. C. Beard, C.B.E., M.C. (1st June, 1943); C. G. G. Nicholson, D.S.O., M.C. (2nd June, 1943).

The following Lieut.-Colonels (temporary Brigadiers) to be acting Major-Generals:—S. C. Kirkman, O.B.E., M.C., R.A. (14th April, 1943); R. N. Stewart, O.B.E., M.C. (14th February, 1943); R. N. Gale, O.B.E., M.C., Royal Inniskilling Fusiliers (7th May, 1943); C. B. Callander, M.C., Leicestershire Regiment (17th May, 1943); G. McI. S. Bruce, O.B.E., M.C., Lincolnshire Regiment (17th June, 1943); A. M. Cameron, M.C., Royal Engineers (15th July, 1943).

The following to be acting Major-Generals:—War Subs. Lieut.-Colonels (local Major-Generals) A. W. Stott, F.R.C.P., and C. M. Page, D.S.O., M.B., F.R.C.S. (5th May, 1943); War Subs. Lieut.-Colonels* (temporary Brigadiers) C. M. Smith, O.B.E., M.C., A.M.I.Mech.E., R.A.S.C. (15th March, 1943), and J. A. M. Bond, C.B.E., V.D. (11th June, 1943).

To be local Major-Generals:—Lieut.-Colonel (local Brigadier) W. H. Ogilvie, M.D., F.R.C.S. (5th May, 1943); Colonel (temporary Brigadier) W. C. Hartgill, O.B.E., M.C., late R.A.M.C. (20th May, 1943).

THE ARMY IN INDIA.—The following appointments and promotions have been announced:—

To be G.O.C.-in-C., North-Western Army.—General Sir Edward Quinan, K.C.I.E., C.B., D.S.O., O.B.E., Indian Army (24th April, 1943).

To be Inspector of Infantry.—Colonel (temporary Major-General) J. B. Scott, D.S.O., M.C. (28th March, 1943).

Major-Generals.—The following to be Major-General:—Colonel J. S. S. Martin, K.H.S., I.M.S. (6th March, 1943).

The following Colonels (temporary Brigadiers) to be acting Major-Generals:—A. C. Curtis, D.S.O., M.C. (28th March, 1943); F. Buckley (4th November, 1942); A. W. W. Holworthy, M.C. (15th June, 1943).

GENERAL

AMERICAN TRIBUTE TO BRITISH SOLDIERS.—The following appeared in *The Times* of 15th July:—

"In response to requests from a number of readers, we reproduce the full text of a tribute to the British soldier by an American who served with a medical unit of the 7th Armoured Division in the battle of El Alamein. In a letter to New York he wrote:—

"Incidentally, while I'm on the subject, I'd like to say something about the British Tommy. There's no finer or braver fighting man in the world than the Tommy. . . . For

sheer guts and ability to keep coming back time and after, he has no superiors. I remember vividly one night at Alamein, just before the push, that to me exemplifies the fighting qualities of the British. It was in the southern sector, and the Jerries were tucked in snugly behind three minefields. We were trying to get through the minefields. The idea was that the tanks were to blast their way through the minefield gap, spread out on the other side of the fields, and work their way forward. We were being followed up by a unit of light infantry.

"Well, the tanks got through the minefields all right, and the medical officer and I stopped on the other side of the third gap, about 300 yards behind the tanks. Then all hell broke loose as Jerry opened up with everything he had: .88's, heavy ack-ack fired along the ground, small arms—everything. The tanks were forced to drop back on us, and we had so many casualties we couldn't back up. And then, in the face of one of the worst barrages I have seen, the infantry came up to us and started through.

"I have never witnessed anything like it. At a steady walk, with their rifles at the port, looking straight ahead, they marched into it. I saw men with their heads blown off as they walked, men with arms and legs shot away. There was no hope of getting through, but they kept on, wave after wave of them, and they marched in singing. Usually you could just sort of feel the beat of it under the barrage, but occasionally, for a brief few seconds, the noise of firing would lift and you'd hear their voices rolling out. I don't think I have ever felt such a pride in fellow-men—I was just mightily proud of mankind in general.

"The medical officer I was with that night was killed and another who rushed up to take his place was wounded. It ranks with the worst nights I have spent, but the thing that stands out for me is the sight—and sound—of those men with rifles and bayonets and magnificent courage walking into the face of that point-blank barrage, and singing as they walked. After witnessing that and a few things like it, I'll not take any criticism of the Tommy from anyone."

REGIMENTAL EXPLOITS.—Short accounts of the exploits of various units and formations in North Africa were published in *The Times* issues of the following dates:—

8th June	...	...	155th Field Battery, R.A.*
10th June	...	...	The Royal Dragoons.
			The Queen's Bays.
11th June	...	...	The 16th/5th Lancers.
15th June	...	...	The Royal Fusiliers.
16th June	...	...	1st Armoured Division.
23rd June	...	...	The East Yorkshire Regiment.
25th June	...	...	The Royal Northumberland Fusiliers.
6th July	...	...	The Irish Brigade.

A longer account of the operations of the Brigade of Guards in North Africa was published in *The Times* of 26th June.

GERMAN MILITARY PAPER.—The periodical, *Militär Wochenblatt*, ceased publication at the end of 1942.

ARMY CADET FORCE.—Major-General Lord Bridgeman, Director-General of the Home Guard, reviewed, on 30th July, the growth, organization, and training of the Army Cadet Force.

Since expansion began in 1941, when the strength was about 25,000, the Force has grown to 180,000, divided into 1,800 units, varying in size from 30 to 1,000 cadets, spread all over the United Kingdom. The present strength compares with a total of over 100,000 in 1914–18, a figure that fell to 13,000 in 1931. All cadet units go to camp each year, and proficiency certificates are granted. From October, when the Force is

* Two D.S.O.s, one Military Cross, one Distinguished Conduct Medal and four Military Medals were awarded to officers and men of this battery who took part in the fighting in Tunisia.

expected to have a strength of 200,000, Army Cadets will have to qualify in certain physical standards before they can enter for their proficiency test known as War Certificate A. These standards are:—100 yards, high jump, long jump, five-mile walk, mile run, rope climb, heaving test, and swimming. To qualify a cadet must pass in five out of eight. To train cadet leaders, physical training courses have been held at Army schools throughout the country, and more than 8,000 cadets from the Junior Training Corps and Army Cadet Force have attended.

THE ROYAL NORTHUMBERLAND FUSILIERS.—A plaque commemorating men of The Royal Northumberland Fusiliers who landed at Singapore in the teeth of the Japanese invasion was unveiled on board a Fighting French merchant ship, the last ship to leave Singapore, at a North-West port on 3rd July. Commandant Witzel, director of the Fighting French Mercantile Marine, unveiled the plaque, which bore the inscription in French and English: "To the glory of God and in remembrance of the men of The Royal Northumberland Fusiliers who gave their lives defending this ship." One of the ship's officers said afterwards that as the Japanese were closing in on Singapore the ship was sent there with a battalion of The Northumberland Fusiliers. A party of the Fusiliers manned the A.A. guns and brought down three of the aeroplanes attacking the ship. Crowds of women and children were swarming on the quayside pleading to be taken on board. The captain took 1,200 of them and left the smoking harbour while the Fusiliers went to meet the enemy.

ROYAL SUSSEX REGIMENT.—The surrender of General von Arnim in Tunisia on 12th May was made to a battalion of the Royal Sussex Regiment (commanded by Lieut.-Colonel J. R. Glennie) of the 4th Indian Division.

PARACHUTE REGIMENT.—The new cap badge of the Parachute Regiment is now worn by all parachute troops instead of the badge of the Army Air Corps, of which the Parachute Regiment forms a part. The design of the badge is a parachute on spread wings, with the Royal Crest above.

SOUTH LANCASHIRE REGIMENT.—On 16th May, at a ceremony attended by General Sir Douglas Baird, Colonel of the Regiment, the Boteler Chapel in Warrington parish church was dedicated by the Bishop of Liverpool as the regimental chapel of the South Lancashire Regiment.

CIVILIAN AIR RAID CASUALTIES.—The following figures show civilian casualties due to air raids on the United Kingdom during 1943:—

				<i>Killed.</i>	<i>Injured and detained in hospital.</i>	<i>Total.</i>
January ...	...	...	...	328	507	835
February ...	...	...	...	252	347	599
March ...	...	...	...	293	439	732
April ...	...	...	...	172	205	377
May ...	...	...	...	584	733	1,317
June ...	...	...	...	201	284	485

NEW ZEALAND

THE KING'S MESSAGE.—After the King's visit to North Africa last June, His Majesty sent the following message to the Governor-General, Sir Cyril Newall: "It was a source of deep regret to me that I did not have an opportunity of seeing the New Zealand troops who have fought so magnificently in the recent campaign."

LEAVE HOME.—In July a large contingent of members of the New Zealand Division arrived home on leave from North Africa. They were men who had been abroad on active service for over three years.

SOUTH AFRICA

6TH S.A. ARMoured DIVISION.—In May the 6th South African Armoured Division arrived in the Middle East. This division is available for service anywhere. It includes Rhodesian troops, who for the first time form an integral part of a South African formation.

INDIA

VICEROY-DESIGNATE.—It was announced on 19th June that the King had approved the appointment of Field-Marshal Sir Archibald Wavell, G.C.B., C.M.G., M.C., as Viceroy and Governor-General of India in succession to the Marquess of Linlithgow, retiring in October.

COMMANDER-IN-CHIEF.—General Sir Claud Auchinleck, G.C.I.E., C.B., C.S.I., D.S.O., O.B.E., appointed Commander-in-Chief in India in succession to Field-Marshal Sir A. Wavell, assumed his command on 23rd June.

VICTORIA CROSS.—The Viceroy, Lord Linlithgow, presented the Victoria Cross to Havildar Parkash Singh, 8th Punjab Regiment, at a special ceremony held at Delhi on 1st July.

Speaking to newspaper correspondents at Delhi on 6th July, the Commander-in-Chief revealed—as an instance of mutual respect and friendliness between the British and Indian Services—that the award of the V.C. to Havildar Parkash Singh (see page 232) was made on the recommendation of men of a British battalion, the Royal Inniskilling Fusiliers.

The posthumous award to Company Havildar-Major Chhelu Ram, 6th Rajputana Rifles (see page 232) brings the total up to date of Victoria Crosses bestowed on Indian soldiers during this War to five—of which two have been granted to members of the 6th Rajputana Rifles.

INDIAN ARMY COMPOSITION.—It was officially stated in July that, from the latest available figures, Hindus (including Gurkhas) provide half the Army, Moslems 34 per cent., and other religious groups, including Christians, 6 per cent.

No less than 8 per cent. of the recruits come from Nepal, the home of the Gurkhas and an independent country forming no part of India. The provincial percentages are:—Punjab, 50; United Provinces, 15; Madras, 10; Bombay, 10; North-West Frontier Province, 5; Ajmere and Merwara, 3; Bengal, 2; Central Provinces, Berar, Assam, Bihar and Orissa, 5.

ALLIED NATIONS

POLAND

CASUALTY.—General Sikorski, the Polish Prime Minister and Commander-in-Chief, was killed on the night of 4th July when the bomber in which he was returning to London from the Middle East crashed shortly after leaving Gibraltar.

NEW PRIME MINISTER AND C.-IN-C.—M. Mikolajczyk is the new Polish Prime Minister and General Sosnkowski has been appointed Commander-in-Chief.

UNITED STATES

COMMAND.—Lieut.-General F. M. Andrews, Commanding General in the European Theatre of Operations, was killed on 3rd May in an aeroplane accident in Iceland. He was succeeded in his appointment by Lieut.-General J. L. Devers.

CASUALTIES IN NORTH AFRICA.—It was officially announced on 28th May that American casualties in North Africa between 8th November, 1942, and 15th May, 1943, totalled 18,556—comprising 2,182 killed, 9,437 wounded and 6,937 missing, including prisoners.

WAR SECRETARY.—Mr. Henry L. Stimson, American Secretary of War, visited England in July.

AIR NOTES

ROYAL AIR FORCE

H.M. THE KING

The King, accompanied by the Secretaries of State for War and Air, flew from England on the night of 11th June on a visit to British and American forces in North Africa, landing next morning after a non-stop flight. During a tour lasting a fortnight, the King flew over 5,000 miles. From the landing point, he went to Algiers, staying two days. Thence he flew to an American aerodrome at Oran, back to Algiers for another day, and then on to Tunis, where two nights were spent. Next he visited the aerodrome at Grangolia, on the Cape Bon peninsula, and the same evening left for Castel Benito, Tripoli, where he embarked for a visit to Malta (see "Navy Notes"). After his return he flew from Castel Benito on 22nd June back to Algiers. Two days later he flew to another aerodrome, and had dinner in a service mess before leaving for England. The journey to and from North Africa was made in a Service aeroplane.

APPOINTMENTS

PRINCIPAL AIR A.D.C.—On 4th May, the appointment was announced of Air Chief Marshal Sir Edgar Ludlow-Hewitt, G.B.E., K.C.B., C.M.G., D.S.O., M.C., Inspector-General of the Royal Air Force, as Principal Air Aide-de-Camp to the King, in succession to Air Chief Marshal Sir Hugh C. T. Dowding, G.C.B., G.C.V.O., C.M.G. (retired), to date from 14th April, 1943.

AIR MEMBER FOR TRAINING.—On 11th May, the *London Gazette* announced the appointment of Air Vice-Marshal (acting Air Marshal) R. M. Drummond, C.B., D.S.O., O.B.E., M.C., as Air Member for Training on the Air Council, vice Air Marshal A. G. R. Garrod, C.B., O.B.E., M.C., D.F.C., to date 27th April, 1943.

TACTICAL AIR FORCE.—On 14th June, the Air Ministry announced that as a result of experience gained in the fighting in North Africa, certain measures of reorganisation had been effected in the Metropolitan Air Force. The Army Co-operation Command, which was formed in December, 1940, to organize, experiment and train in all forms of land-air co-operation, has been merged into a Tactical Air Force, designed to work with the Army in the field. The organization of this force conforms closely with that of the Tactical Air Force under Air Marshal Sir Arthur Coningham in North-West Africa. The Tactical Air Force is located in Fighter Command in order to ensure close integration of the work of the tactical reconnaissance aircraft and light bombers with that of the main fighter force. The Tactical Air Force is commanded by Air Vice-Marshal J. H. D'Albiac, C.B., D.S.O.

The following higher appointments were also announced on 14th June :—

TECHNICAL TRAINING COMMAND.—Air Marshal Sir Arthur S. Barratt, K.C.B., C.M.G., M.C., formerly Air Officer Commanding-in-Chief, Army Co-operation Command, to be Air Officer Commanding-in-Chief, Technical Training Command.

R.A.F. MISSION, MOSCOW.—Air Marshal Sir John T. Babington, K.C.B., C.B.E., D.S.O., formerly Air Officer Commanding-in-Chief, Technical Training Command, to be Head of the Royal Air Force Mission in Moscow.

The following appointments were announced on 1st July :—

Air Vice-Marshal L. N. Hollinghurst, C.B., O.B.E., D.F.C., to be Air Officer Commanding No. 9 (Fighter) Group.

Air Vice-Marshal G. C. Pirie, C.B., C.B.E., M.C., D.F.C., to be Director-General of Organization at the Air Ministry.

Air Vice-Marshal J. O. Andrews, C.B., D.S.O., M.C., to be Air Officer in Charge of Administration, Headquarters, Flying Training Command.

Air Vice-Marshal G. R. M. Reid, C.B., D.S.O., M.C., to be Air Officer Commanding, No. 54 (Flying Training) Group.

ROYAL OBSERVER CORPS.—On 23rd June, the Air Ministry announced that Group Captain Finlay Crerar, C.B.E., had been appointed Commandant of the Royal Observer Corps, with effect from 23rd June. He succeeds Air Commodore G. H. Ambler, O.B.E., A.F.C., who has been appointed to the post of Deputy Senior Air Staff Officer, Headquarters, Fighter Command. Group Captain Crerar will hold the acting rank of Air Commodore in his new appointment.

PROMOTIONS

The following have been notified, the dates first mentioned being those of the *London Gazette* :—

27TH APRIL.—Air Vice-Marshal R. S. Sorley, C.B., O.B.E., D.S.C., D.F.C., to be acting Air Marshal (20th April, 1943). Air Commodore R. L. G. Marix, C.B., D.S.O., to be acting Air Vice-Marshal (11th April, 1943).

4TH MAY.—Air Commodore C. R. Steele, D.F.C., to be acting Air Vice-Marshal (1st May, 1943).

25TH MAY.—Air Commodore R. B. Mansell, C.B.E., to be acting Air Vice-Marshal (19th March, 1943). Group Captain (acting Air Commodore) J. D. Breakey, D.F.C., to be acting Air Vice-Marshal (20th April, 1943).

8TH JUNE.—Group Captain (acting Air Commodore) B. E. Embry, D.S.O., A.F.C., A.D.C., to be acting Air Vice-Marshal (1st June, 1943).

25TH JUNE.—Air Marshal (temporary Air Chief Marshal) Sir Christopher L. Courtney, K.C.B., C.B.E., D.S.O., to be Air Chief Marshal (1st June, 1943). Air Vice-Marshals (acting Air Marshals) to be Air Marshals (temporary) : R. M. Drummond, C.B., D.S.O., O.B.E., M.C., and J. C. Slessor, C.B., D.S.O., M.C. (1st June, 1943). Air Commodores (acting Air Vice-Marshals) to be Air Marshals (temporary) : W. F. MacNeece Foster, C.B., C.B.E., D.S.O., D.F.C. (retired) ; G. R. Bromet, C.B., C.B.E., D.S.O. (retired) ; R. L. G. Marix, C.B., D.S.O. ; R. B. Mansell, C.B.E. ; and M. B. Frew, C.B., D.S.O., M.C., A.F.C. (1st June, 1943). Air Commodore R. V. Goddard, C.B., C.B.E., to be acting Air Vice-Marshal (3rd March, 1943), and Air Vice-Marshal (temporary), (1st June, 1943). *Technical Branch*.—Air Commodores (acting Air Vice-Marshals) to be Air Vice-Marshals (temporary) : O. G. W. G. Lywood, C.B.E. ; R. S. Aitken, C.B.E., M.C., A.F.C. (1st June, 1943). A number of Group Captains in the General Duties, Technical, Equipment and Accountant Branches were also promoted to the rank of Air Commodore (temporary), to date 1st June, 1943.

HONOURS AND AWARDS

Victoria Cross

On 28th April, it was announced that the King had conferred the Victoria Cross on the late *Acting Wing Commander Hugh Gordon Malcolm*, No. 18 Squadron. This officer commanded a squadron of light bombers in North Africa. Throughout his service in that theatre his leadership, skill and daring were of the highest order. On 17th November, 1942, he was detailed to carry out a low level formation attack on Bizerta airfield, taking advantage of cloud cover. Twenty miles from the target the sky became clear, but Wing Commander Malcolm carried on, knowing well the danger of proceeding without a fighter escort. Despite fierce opposition, all bombs were dropped within the airfield perimeter. A Junkers 52 and a Messerschmitt 109 were shot down ; many dispersed enemy aircraft were raked by machine gun fire. Weather conditions became extremely unfavourable, and as a result two of his aircraft were lost by collision ; another

was forced down by enemy fighters. It was due to this officer's skilful and resolute leadership that the remaining aircraft returned safely to base.

On 28th November, 1942, he again led his squadron against Bizerta airfield, which was bombed from a low altitude. The airfield, on this occasion was heavily defended, and intense and accurate anti-aircraft fire was met. Nevertheless, after his squadron had released their bombs, Wing Commander Malcolm led them back again and again to attack the airfield with machine gun fire.

Finally, on 4th December, 1942, Wing Commander Malcolm, having been detailed to give close support to the First Army, received an urgent request to attack an enemy fighter airfield near Cheuigui. He knew that to attack such an objective without a fighter escort—which could not be arranged in the time available—would be to court almost certain disaster; but believing the attack to be necessary for the success of the Army's operations, his duty was clear. He decided to attack. He took off with his squadron and reached the target unmolested, but when he had successfully attacked it, his squadron was intercepted by an overwhelming force of enemy fighters. Wing Commander Malcolm fought back, controlling his hard-pressed squadron and attempting to maintain formation. One by one his aircraft were shot down until only his own aircraft remained. In the end he, too, was shot down in flames. Wing Commander Malcolm's last exploit was the finest example of the valour and unswerving devotion to duty which he constantly displayed.

On 28th May, it was announced that the King had conferred the Victoria Cross on *Acting Wing Commander G. P. Gibson*, D.S.O., D.F.C., Reserve of Air Force Officers, No. 617 Squadron. This officer served as a night bomber pilot at the beginning of the War and quickly established a reputation as an outstanding operational pilot. In addition to taking the fullest possible share in all normal operations, he made single-handed attacks during his "rest" nights on such highly defended objectives as the German battleship "Tirpitz," then completing in Wilhelmshaven. When his tour of operational duty was concluded, he asked for a further operational posting and went to a night fighter unit instead of being posted for instructional duties. In the course of his second operational tour, he destroyed at least three enemy bombers and contributed much to the raising and development of new night fighter formations. After a short period in a training unit he again volunteered for operational duties and returned to night bombers. Both as an operational pilot and as leader of his squadron he achieved outstandingly successful results, and his personal courage knew no bounds. Berlin, Cologne, Danzig, Gdynia, Genoa, Le Creusot, Milan, Nuremberg and Stuttgart were among the targets he attacked by day and by night.

On the conclusion of his third operational tour, Wing Commander Gibson pressed strongly to be allowed to remain on operations, and he was selected to command a squadron then forming for special tasks. Under his inspiring leadership, this squadron has now executed one of the most devastating attacks of the war—the breaching of the Mohne and Eder dams. The task was fraught with danger and difficulty. Wing Commander Gibson personally made the initial attack on the Mohne dam. Descending to within a few feet of the water and taking the full brunt of the anti-aircraft defences, he delivered his attack with great accuracy. Afterwards he circled very low for 30 minutes, drawing the enemy fire on himself in order to leave as free a run as possible to the following aircraft which were attacking the dam in turn. Wing Commander Gibson then led the remainder of his force to the Eder dam, where, with complete disregard for his own safety, he repeated his tactics, and once more drew on himself the enemy fire so that the attack could be successfully developed.

Wing Commander Gibson has completed over 170 sorties, involving more than 600 hours operational flying. Throughout his operational career, prolonged exceptionally at his own request, he has shown leadership, determination and valour of the highest order.

BIRTHDAY HONOURS

The following were among the honours conferred on the occasion of the official celebration of the King's Birthday (2nd June, 1943):—

BARON.—Air Chief Marshal Sir Hugh C. T. Dowding, G.C.B., G.C.V.O., C.M.G., Air Officer Commanding-in-Chief, Fighter Command, 1936–40.

K.C.B. (MILITARY).—Air Marshal A. G. R. Garrod, Air Marshal R. H. Peck, Air Marshal R. M. Drummond, Air Marshal J. C. Slessor.

K.B.E. (MILITARY).—Acting Air Marshal F. L. Linnell.

D.B.E. (MILITARY).—Matron-in-Chief Miss Emily M. Blair, Princess Mary's R.A.F. Nursing Service.

THE KING'S AFRICAN TOUR

On the occasion of H.M. visit to North Africa and Malta, the following promotion in, and appointments to, the Royal Victorian Order were announced, to date 24th June, 1943:—

C.V.O.—Group Captain Edward H. Fielden, M.V.O.; D.F.C., A.F.C.

M.V.O., 4TH CLASS.—Acting Wing Commander Henry B. Collins, D.F.C., R.A.F.O.; Flight Lieutenant Ernest G. Fraser; acting Flight Lieutenant William Gallagher; Wing Commander George J. H. Jeffs, R.A.F.V.R.; Acting Squadron Leader John L. Mitchell, D.F.C., R.A.F.V.R.; acting Flight Lieutenant Sydney S. Payne, A.F.M., R.A.F.V.R.; Wing Commander Charles E. Slee, A.F.C.

PERSONNEL

LEAVE CENTRE.—Lady MacRobert, two of whose three sons were killed while serving in the R.A.F. during the war, and the third in a flying accident shortly before the war, has offered to place her principal country house in Aberdeenshire at the disposal of members of the R.A.F. on leave. The offer has been gratefully accepted by the Secretary of State for Air on behalf of the R.A.F. The house is known as Alastean House. It has been handed over to trustees, and funds for its upkeep as a leave centre have been provided by Lady MacRobert.

PRINCESS MARY'S R.A.F. NURSING SERVICE

The Air Ministry announced on 3rd June that Principal Matron Miss Gladys Taylor has been appointed Matron-in-Chief, Princess Mary's R.A.F. Nursing Service, with effect from 16th July, in succession to Dame Emily Mathieson Blair, who retires, having completed her term of appointment. Miss Taylor has held appointments as Matron of R.A.F. Hospitals in this country and in Aden and Iraq.

WOMEN'S AUXILIARY AIR FORCE

H.R.H. the Duchess of Gloucester, Air Chief Commandant, on 29th and 30th April inspected sections of the Women's Auxiliary Air Force in Scotland. The Duchess inspected other sections on 6th May, in Cornwall on 6th July, and in the South West of England on 8th July.

DOMINIONS AND COLONIES

CANADA

MAINTENANCE OF OVERSEA SQUADRONS.—An agreement whereby the Canadian Government takes over financial responsibility for the R.C.A.F. oversea (see the May issue of the JOURNAL, page 162) was formally signed in London on 20th April by Mr. Vincent Massey, Canadian High Commissioner, and Sir Archibald Sinclair, Secretary of State for Air. The new agreement, which takes effect from 1st April, and will cost Canada 350,000,000 dollars (about £80,000,000) in the first year, makes the following changes:—

Canada previously paid for the training of all R.C.A.F. crews up to the time they left Canada. After reaching Britain they were paid according to R.A.F. rates by the

British Government. The difference between these rates and R.C.A.F. rates was made up by the Canadian Government. Now the Canadian Government will take care of all pay and allowances for all R.C.A.F. personnel oversea.

Canada was previously wholly responsible only for the maintenance and provision of aircraft for the three original squadrons which came overseas as self-contained units. The succeeding R.C.A.F. squadrons which were formed oversea were maintained by the R.A.F. Now all maintenance, including the purchase of aircraft and the maintenance of R.C.A.F. stations, will be the responsibility of the Canadian Government.

CANADA'S AIR EFFORT.—In a speech at Slough on 5th June, Mr. Vincent Massey, High Commissioner for Canada, said that more than 150 air training schools in Canada used 10,000 aeroplanes in their daily work, and these flew 2,000,000 miles each day. Men trained as pilots or members of air crews numbered 50,000, enough to man 15,000 combat aircraft. Nearly 80,000 more had been trained to do the work of ground crews. There were 32 R.C.A.F. squadrons serving overseas, and of the flying members of the R.A.F. and R.C.A.F. now operating together from Great Britain, between a quarter and a third were Canadian.

INDIA

INSPECTOR-GENERAL.—The appointment was announced at Delhi on 23rd June of Group Captain Harold J. Proud as Inspector-General, Indian Air Force, indicating a further step in the development and expansion of this Force. Group Captain Proud recently arrived back in India from England. He formerly commanded No. 5 (Army Co-operation) Squadron at Chaklala. He entered the R.A.F. in May, 1926, and passed the examination in the Indian vernacular, Urdu, in October, 1937.

PROMOTION FROM THE RANKS.—It was announced in Delhi on 27th June that officers for the rapidly expanding Indian Air Force are being found to a large extent among the airmen. In the general duties (air crews) branch, 28 per cent. of officers are promoted airmen, in the technical branch, 30 per cent., and in the equipment branch, 25 per cent. During the previous three months, 59 Indian airmen had been selected for training as pilot officers and 12 had been given commissions in other branches of the service.

REVIEWS OF BOOKS

GENERAL

The War: Third Year. By Edgar McInnis. (Oxford University Press.) 8s. 6d.

This third volume of Professor McInnis' war history covers the period from October, 1941, to September, 1942. As in the previous volumes, the narrative is lucid and readable throughout. The author deals with all aspects of this vast global war on broad lines, without attempting much detail. He is evidently at great pains to be impartial in such comments and criticisms as he makes. Nevertheless, some readers will consider certain of his judgments to be prejudiced, because the "facts" on which those judgments are based are disputable.

Economics in Uniform. By Albert T. Lauterbach. (English publishers—Oxford University Press.) 20s.

We have here a detailed study by an American writer on "military economy," "war economy," "economic warfare," "economic preparedness"—in fact, economics in general in the light of present-day world war conditions and their probable aftermath. In the words of the author, one of his chief purposes is "to analyse the effects upon industrial countries of rearmament and mobilization—effects which can have a powerful influence on economy and social structure during the war itself and far into the future."

The book is fully documented and includes a long bibliography of works on social and economic aspects of modern warfare.

Badges of H.M. Services. (Wm. Briggs & Co., Ltd., Manchester.) 8s. 6d.

Each of the 133 pages of this well-produced little book is headed by an excellent coloured illustration of some badge of the Services. Below each illustration are a few paragraphs which not merely explain the badge's origin, but also mention a few salient points in the history of the Service, Corps or Unit in question. Although the badges of the other Services are not excluded—for instance, there are illustrations of those of the Royal Navy, Merchant Navy, W.R.N.S., Royal Air Force, Air Training Corps and National Fire Service—the bulk of the volume (120 pages) is concerned with the numerous Corps and Regimental Badges of the Army.

NAVAL

Brassey's Naval Annual for 1943. Edited by Rear-Admiral H. G. Thursfield. (William Clowes & Sons, London.) 30s.

The fifty-fourth Annual Brassey has made its appearance and, considering the difficulties of the times, it contains a great deal of information, although its scope is more limited than usual and the greater part of the book is taken up by a review of naval occurrences during the year 1942. Only two of the nine chapters consist of papers on matters of topical interest such as are traditionally associated with Brassey, but the majority of the remainder, although they practically confine themselves to the year's events, contain a great deal of very interesting professional comment in addition to a recapitulation of published facts presented in a particularly useful form for handy reference and, incidentally, the settlement of numerous wardroom arguments.

Among the contributors there is Sir Archibald Hurd, who deals with the war on Shipping and Supplies and, as might be expected of one who fought almost single-handed for the recognition of merchant shipping in the early days of the late war, he goes outside the year to drive home his points. Major Oliver Stewart is responsible for the chapter on Air Operations in the War at Sea; "Greenwich" for the U-boat War; and Commander Kenneth Edwards for the doings of submarines and light coastal craft

during the year. Admiral Sir Herbert Richmond has a striking chapter on the Modern Conception of Sea Power, while "Barbel" writes on Sea Power and the Air Weapon. Generally speaking, these chapters are less provocative than has come to be expected of Brassey during the last few years, but there is plenty of room for debate.

The Editor provides a Naval Chronicle for 1942 and official documents published by the U.S. Navy and Mr. F. E. McMurtrie a chapter on Foreign Navies.

As is perhaps excusable at the present time, the reference section devoted to the particulars of British and foreign warships and ship-borne aircraft is more open to criticism than the remainder of the book, although it is obvious that considerable efforts have been made to improve it since the last issue. No doubt difficulties of printing labour, supplies and rapid production are principally responsible for the inconsistencies and omissions and it is, of course, obviously impossible to bring the pictorial section anything like up to date, either in the silhouettes or the plans. A diary of naval events, the First Lord's statement on the 1943 naval estimates and one or two minor tables complete the book.

ADDITIONS TO THE LIBRARY

GENERAL

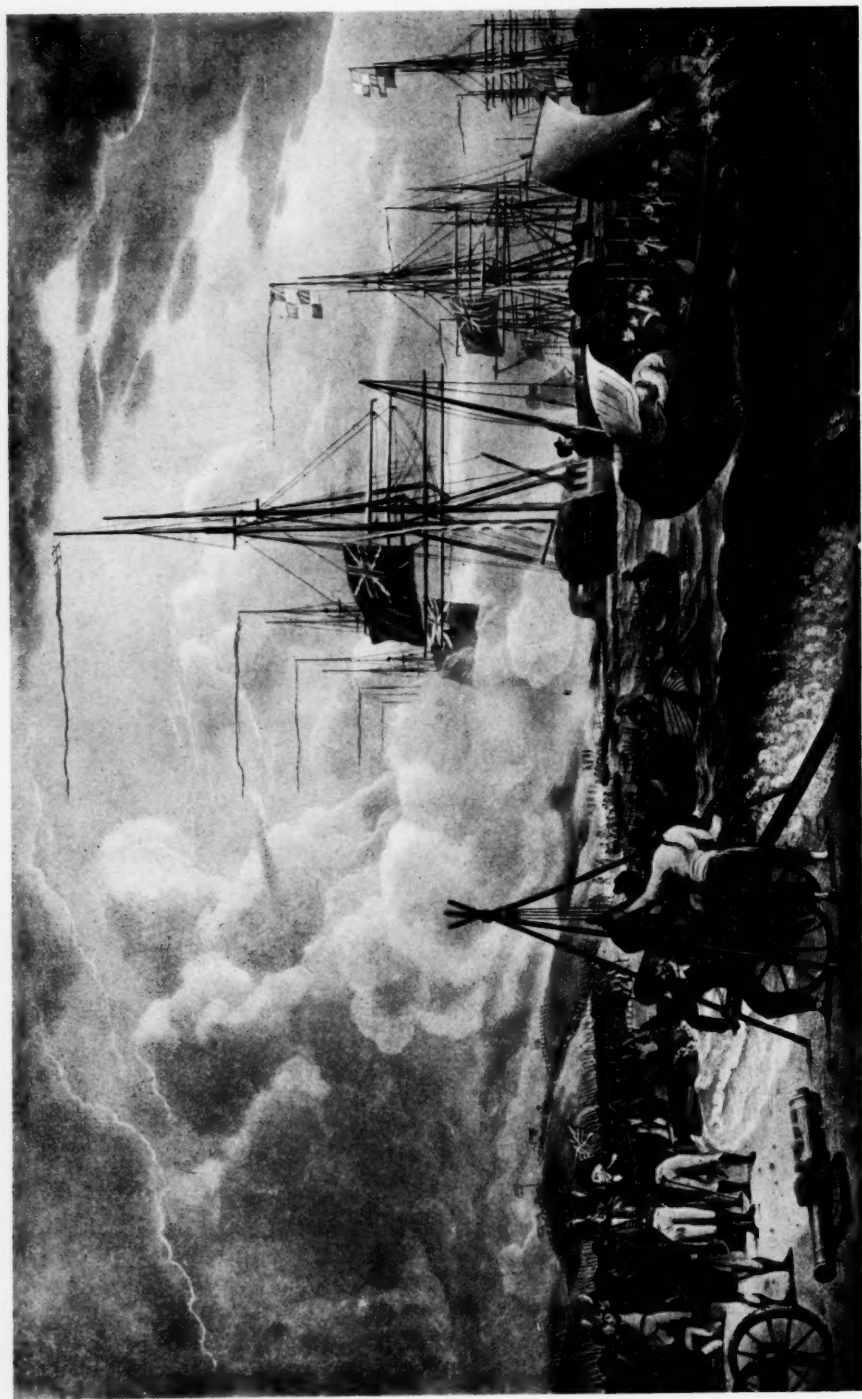
- A YEAR OF BATTLE. By A. Moorehead. 8vo. (Hamish Hamilton.) 10s. 6d.
 FROM MANY ANGLES. By Sir F. Sykes. 8vo. (G. G. Harrap & Co.) 25s. Presented.
 THE WAR—THIRD YEAR. By E. McInnes. 8vo. (Oxford University Press.) \$2. Presented.
 COMBINED OPERATIONS. By the Ministry of Information. 8vo. (H.M.S.O.) 1s.
 THE READER OVER YOUR SHOULDER. By R. Graves and R. Hodge. 8vo. (Jonathan Cape.) 18s.
 MCARTHUR ON WAR. By D. McArthur. 8vo. (The Bodley Head.) 15s.
 I SAW THE FALL OF THE PHILIPPINES. By C. P. Romulo. 8vo. (G. G. Harrap & Co.) 9s.
 WIND OF FREEDOM. By Compton Mackenzie. 8vo. (Chatto & Windus.) 15s.
 AMPHIBIOUS WARFARE AND COMBINED OPERATIONS. By Lord Keyes. (Cambridge University Press.) 4s. 6d. Presented.
 RED MOON RISING. By G. Rodger. 8vo. (The Cresset Press.) 12s. 6d.
 THE STRUCTURE OF MORALE. By J. T. MacCurdy. 8vo. (Cambridge University Press.) 8s. 6d.
 THE PROBLEM OF GERMANY. By the Institute of International Affairs. 8vo. (Institute of International Affairs.) 2s. 6d.
 WORLD IN TRANCE. By L. Swarczchild. 8vo. (Hamish Hamilton.) 12s. 6d.

NAVAL

- EAST OF MALTA—WEST OF SUEZ. SEPTEMBER, 1939 TO MARCH, 1941. By the Admiralty. 8vo. (H.M.S.O.) 1s.
 HIS MAJESTY'S MINE SWEEPERS. By the Admiralty. 8vo. (H.M.S.O.) 9d.

MILITARY

- THE GERMAN ARMY OF TO-DAY. By W. Necker. 8vo. (Lindsay Drummond.) 6s.



From a picture in the Crookshank Collection.

A COMBINED OPERATION IN 1799

The Fleet under Vice-Admiral Mitchell landing the British Army under General Sir Ralph Abercromby on the beach near Keick Down, Holland, on 27th August, 1799.

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